

South Dakota State Test of Educational Progress
Dakota STEP

Technical Report: 2005 Spring Administration

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San Antonio, TX

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INTRODUCTION

This Technical Report provides information on the development, administration, scoring, and reporting of the 2005 South Dakota State Test of Educational Progress (*Dakota STEP*), as well as psychometric data used to score the test and ensure its quality. It is intended for those responsible for reviewing the effectiveness of the *Dakota STEP* as well as anyone seeking a deeper understanding of the methods used to develop the test and its results.

The chapters of this report cover the major processes and methods used to develop, administer, score, and report the results of the *Dakota STEP*. Data from the test results and its items, including indicators used for quality control, are presented separately in the appendices. The report also includes a glossary of key terms.

CHAPTER 1: BACKGROUND

1.1 Statewide Testing and Accountability

The Dakota State Test of Educational Progress (*Dakota STEP*) is South Dakota's annual statewide assessment of student progress. It is administered to students in grades 3 through 8 and grade 11 each spring. The *Dakota STEP* fulfills the requirements for statewide assessment contained in the federal *No Child Left Behind Act of 2001* (NCLB), the latest reauthorization of the *Elementary and Secondary Education Act* of 1965 (ESEA). NCLB requires each state to adopt challenging academic content and achievement standards for all public school students and to implement a set of high-quality assessments to measure *adequate yearly progress* toward meeting these standards. Moreover, the assessments must report student results using at least three *performance levels*: basic, proficient, and advanced (NCLB, §6311).

The assessment provides critical feedback to educators, students, and parents regarding students' academic achievement and mastery of South Dakota's State Academic (Content) Standards. The *Dakota STEP* is not "high stakes" for students; however, the state is required to notify the public of the performance of its schools and school districts. The NCLB Report Card evaluates attendance, graduation rates, and student mathematics and reading proficiency. The NCLB Report Card reports the percentage of students scoring at each level for each school, district, and state. Schools and districts that fail to meet adequate yearly progress (AYP) for a single year are put on *alert status*. If schools and districts fail to meet AYP for two consecutive years, the school or district is identified for school improvement.

The development of the *Dakota STEP* began in 2002 with the first operational administration in the spring of 2003. Its foundation is the *Stanford Achievement Test Series, Tenth Edition, Abbreviated Battery, Form D* (Stanford 10), which is augmented with items to assess the Dakota State Academic (Content) Standards in both reading and mathematics. Both *norm-referenced test* (NRT) and standards-based or *criterion-referenced test* (CRT) scores are reported.

1.2 General Format and Students Tested

The *Dakota STEP* is a battery of multiple-choice subtests with additional standards-based (CRT) items unique to South Dakota added to the *Reading Comprehension* subtest at all grades, the *Mathematics Problem Solving* subtest at grades 3 through 8, and the *Mathematics* subtest at grade 11.

All South Dakota public school students in grades 3 through 8 and grade 11 are required to take the *Dakota STEP* with minimal exceptions. Private and alternative site schools that are classified as accredited or approved by the South Dakota Department of Education are to administer the *Dakota STEP*. Students who are state-placed or district-placed must be included in the State of South Dakota's Accountability Plan for *No Child Left Behind*. Bureau of Indian Affairs (BIA) schools participate in the *Dakota STEP* and are expected to follow the same guidelines as public schools.

Augmenting the Stanford 10 to assess the State Content Standards allows South Dakota to satisfy NCLB assessment requirements and to obtain useful norm-referenced data that allow for comparison of its students' achievement with their same-grade peers across the country. All *Dakota STEP* CRT items are developed and composed with the same specifications as the Stanford 10 items, resulting in a unified appearance to students. Both CRT and NRT scores are reported using a *vertical scale*, which describes achievement and growth over time on a common metric.

The *Dakota STEP* subtests are untimed. Approximate testing times are provided to districts/schools for planning purposes only. While the time allotted for the administration of the subtests is adequate for most students, additional time is provided for students to complete the subtests, provided they are actively engaged in testing. Table 1.1 shows the approximate testing times for each of the *Dakota STEP* subtests.

Table 1.1: Approximate Testing Times for the Dakota STEP

	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Grade 8	Grade 11
Word Study Skills	25 minutes	25 minutes					
Reading Vocabulary	30 minutes	30 minutes	30 minutes	30 minutes	30 minutes	30 minutes	30 minutes
Reading Comprehension							
First Session	55 minutes	55 minutes	55 minutes	45 minutes	45 minutes	45 minutes	45 minutes
Second Session	55 minutes	55 minutes	55 minutes	45 minutes	45 minutes	45 minutes	45 minutes
Mathematics Problem Solving							
First Session	60 minutes	60 minutes	60 minutes	60 minutes	60 minutes	60 minutes	
Second Session	60 minutes	60 minutes	60 minutes	60 minutes	60 minutes	60 minutes	
Third Session	60 minutes	60 minutes	60 minutes	60 minutes	60 minutes	60 minutes	
Mathematics							
First Session							60 minutes
Second Session							60 minutes
Third Session							60 minutes
Mathematics Procedures	45 minutes	45 minutes	45 minutes	30 minutes	30 minutes	30 minutes	
Language	40 minutes	40 minutes	40 minutes	30 minutes	30 minutes	30 minutes	30 minutes
Science	40 minutes	40 minutes	40 minutes	30 minutes	30 minutes	30 minutes	30 minutes
Social Science	40 minutes	40 minutes	40 minutes	30 minutes	30 minutes	30 minutes	30 minutes
Total Time	8.5 hours	8.5 hours	8.1 hours	7 hours	7 hours	7 hours	6.5 hours

1.3 Plans for Future Assessments

The Dakota STEP Reading Comprehension subtest was revised for the spring 2005 administration to reflect the new State Academic (Content) Standards for Reading. New Mathematics Problem Solving subtests at grades 3 through 8, and a new Mathematics subtest at grade 11 will be introduced in the spring 2006 administration. A standards-based Science subtest will be introduced in 2006/2007 for grades 3 through 8 and grade 11. Additional revisions of the Dakota STEP will coincide with the planned revisions of the South Dakota State Academic (Content) Standards as shown in Table 1.2: Schedule of Dakota STEP Subtest Revisions.

Table 1.2: Schedule of Dakota STEP Subtest Revisions

	2002	2003	2004	2005	2006	2007	2008	2009	2010
Reading	Field test new items (fall)	New operational test (Administered each spring)			Revised standards approved; Field test new items	Revised standards approved	Field test new items (fall)	Revised operational test (Administered each spring)	
Mathematics	Field test new items (fall)	New operational test (Administered each spring)		Revised standards approved	Field test new items (fall)	Revised operational test (Administered each spring)		Revised standards approved	Field test new items (fall)
Science					Revised standards approved	Field test new items (fall)	New operational test (Administered each spring)		

1.4 Organizations and Groups Involved

The South Dakota Department of Education Office of Curriculum, Technology, and Assessment oversees the development, administration, and reporting of the *Dakota STEP* utilizing the experience, expertise, and capacity of the following external contractors.

Harcourt Assessment, Inc. (Harcourt) publishes the *Stanford Achievement Test* (Stanford 10) and supports the South Dakota Department of Education by developing items for the *Dakota STEP*. In this capacity, Harcourt conducts activities related to item development and convenes item bias and content review sessions with South Dakota teachers. It publishes and distributes the *Dakota STEP* integrated test materials and provides support in training school and district staff to administer the test. Harcourt scores the tests and provides the state, districts, and schools with NRT paper reports as well as the CRT results.

Region IV, a Harcourt subcontractor, produces the Braille version of the *Dakota STEP*.

Accudata, a Harcourt subcontractor, scores the *Dakota STEP* field tests and provides the raw data to Harcourt for analysis.

The Buros Institute for Assessment Consultation and Outreach (Buros Institute or BIACO) of the University of Nebraska conducts standard-setting workshops to determine performance level cut scores and alignment workshops that serve as third-party validation of the *Dakota STEP* assessment with the South Dakota State Content Standards.

In addition, the Department of Education relies on the involvement and expertise of **South Dakota educators** who are involved in the item development process as well as alignment and standard-setting workshops, and who administer the test. District and school personnel serve as test coordinators and/or building coordinators. All provide feedback, both formal and informal, to the Department of Education regarding all aspects of test administration.

CHAPTER 2: CRITERION-REFERENCED TEST DEVELOPMENT

This chapter describes the process of developing the standards-based (CRT) portion of the *Dakota STEP* that provides a measure of students' achievement of the South Dakota State Academic (Content) Standards in reading and mathematics. It is important to recognize that virtually all steps in the development process contribute toward the goal of creating a test that is both *reliable* and *valid*.

Reliability refers to *the consistency of test results* across multiple administrations of the same or alternate forms of the test. Simply, if an examinee were to take an exam multiple times, how consistent would their scores be (after allowing for practice effects)? Reliability is inversely related to measurement error—as error increases, reliability decreases. Measurement error is due to such factors as “...guessing, distractions in the testing situation, administration errors, content sampling, scoring errors, and fluctuations in the individual examinee's state” (Crocker and Algina, 1986, page 106).

Validity is *the degree of the adequacy and appropriateness of the interpretations made from assessments, with respect to a particular use*. It is concerned with the general question, “To what extent will this assessment information or test score help me make appropriate decisions?”

2.1 Test Design (*Blueprints*)

The first step in the creation (or revision) of a standards-based assessment is the development of a test design, or *test blueprint*, which specifies the standards to be assessed and the number of items to assess each standard. Test blueprints are developed for each content domain and grade level. To ensure the reliability of scores, there should be a sufficient number of items addressing each content area for which a score is to be reported.

For the reading test, the South Dakota Department of Education requires 6 items per content standard at grades 3 and 4, and 7 items per content standard at grades 5 through 8 and 11. The South Dakota Department of Education requires 7 items per indicator at grades 3 through 8 and 11 for the *Dakota STEP Mathematics Problem Solving* and *Mathematics* subtests.

2.2 Item Development

Test blueprints serve as the basis for subsequent development of CRT items. Harcourt content specialists compare the blueprints with the existing *Dakota STEP* subtests and the revised State Academic (Content) Standards to determine the number of items to be developed for the new operational subtests. Existing CRT items that were developed specifically for South Dakota but do not assess the revised content standards are removed from the subtest. All Stanford 10 items remain on the assessment, regardless of their alignment with South Dakota standards, as they are used to produce NRT scores.

Following the approval of the revised South Dakota State Academic (Content) Standards for Reading (spring of 2004), members of the South Dakota Standards Revision Committee and Harcourt staff created a “crosswalk” between the old and new reading standards indicating the intended alignment between them and identifying new standards for which there were no items aligned. Harcourt content specialists then analyzed the existing *Dakota STEP* reading subtests to determine the number of items and related passages needed to be developed in order to fully assess the new standards. The number of items developed for each reporting category was approximately twice the number of items needed for the operational test. This allows for the attrition of items following review by Harcourt content specialists, reviews by teacher committees, and field testing.

Working with the South Dakota Department of Education, Harcourt presented the newly developed items to South Dakota teacher committees for bias and content review. During the summer of 2004, new passages and items developed for the 2005 *Reading Comprehension* subtest were reviewed by South Dakota teachers for bias and sensitivity concerns as well as content. New mathematics items developed for the 2006 *Mathematics Problem Solving* and *Mathematics* subtests were reviewed in January of 2005. A summary of committee recommendations to accept, accept with edits, or reject each item was provided to the South Dakota Department of Education for final approval.

Bias Review

The bias review committee participants examine items and passages to ensure that they do not place students at an advantage or disadvantage for reasons related to certain personal or background characteristics of students that are unrelated to mastery of the standards, such as their gender, race, ethnicity, religion, socioeconomic status, disability, or geographic region. In addition, reviewers were asked to consider whether the subject matter and language of test items or reading passages will be acceptable to students, their parents, and other members of South Dakota communities. Committee members were educators from South Dakota school districts and universities, as well as business and community leaders who were invited to participate on an ad hoc basis.

Content Review

Committee members determined whether the items were appropriate for the proposed grade levels and evaluated whether the items measure the content standards, are clearly worded, have only one correct answer, and are of appropriate difficulty. This review is crucial for ensuring the validity of the test, as content validity is not measurable statistically. Committee members were South Dakota educators, including teachers and administrators from the targeted grade levels and subject areas, and school and district specialists from the content domains. Committee members are invited to participate each year on an ad hoc basis.

Items developed for the revised *Reading Comprehension* subtest were reviewed by committee in June and July of 2004. A total of 442 items were reviewed for bias and sensitivity as well as content; 21 were rejected resulting in a 95% acceptance rate.

Items developed for the revised *Mathematics Problem Solving* and *Mathematics* subtests were reviewed by committee in January 2005. A total of 194 items were reviewed for bias and sensitivity as well as content; 21 were rejected resulting in an 89% acceptance rate.

2.3 Field Testing

New items that have been reviewed and accepted by content and bias review committees and approved by the Department of Education are field tested to ensure that they perform according to statistical guidelines.

The *Reading Comprehension* stand-alone field test was administered in October of 2004 to students at the grade level above the standards-based items (prior to the BIACO alignment study and reconciliation project (see Section 8.1)). The sampling process for the fall 2004 Reading field test began with the development of a model of the demographic characteristics of the state. This was done by analyzing the student populations in the grades being tested. Elements considered in the analysis included socioeconomic characteristics (based on percentages of students enrolled in free or reduced lunch programs), ethnicity, and gender. Consideration was also given to ensure the inclusion of students who were enrolled in individual education programs (IEPs) or had limited English proficiency (LEP). Initially, schools were randomly selected for inclusion in the fall 2004 field test sample. The demographic composition of the students in the selected schools was then evaluated against the overall demographic composition of the state. Any mismatch was corrected for by selecting schools to be added to or dropped from the sample until a mix was achieved that generally reflected the demographic composition of the state. Care was taken to preserve geographic diversity, as well.

Stand-alone *Mathematics* field tests will be administered in September 2005 to students at the grade level above the standards-based items. The sampling process described above will be utilized for the fall 2005 field test as well.

Statistical Analysis of Item Performance

After field test items have been scored, a statistical review of these items is conducted as an initial step of operational test construction. As required by the test blueprint, a set of items is then selected and approved for use in the operational test administration.

Selection of new items for the *Dakota STEP* is based on content appropriateness and the following psychometric properties:

Item Difficulty (*p-value*) represents the percentage of students who answered the item correctly. Items selected have *p-values* between 10% and 90%, with preference to items with *p-values* closest to 50%.

Item Discrimination (*point-biserial correlation*) is the ability of the item to differentiate between high- and low-ability students and is based on the correlation between students' success on an item and their success on the test as a whole. Items with a point-biserial correlation greater than 0.3 are good candidate items for operational use. Point-biserial correlations near zero, zero, or negative are likely to be excluded from use as operational items.

Item Bias or Differential Item Functioning (*DIF*) is used to identify gender and ethnic bias. DIF is investigated using the Mantel-Haenszel method. The DIF classification results are specified as either A (negligible DIF), B (intermediate DIF), or C (large DIF) based on

DIF classification rules. Items exhibiting large DIF (C) are likely to be excluded from use as operational items.

2.4 Test Construction

Harcourt assessment specialists constructed the revised *Dakota STEP* operational subtests immediately following the analysis of the field test item data. They reviewed the test blueprints and selected the required number of items for each reporting category for inclusion on the exam.

The revised *Reading Comprehension* subtests for the 2005 *Dakota STEP* administration were constructed by replacing the CRT items not aligned with the revised standards with new CRT items developed to assess the revised standards. The *Dakota STEP Reading Comprehension* subtest was constructed prior to the December 2004 alignment study.

The revised mathematics subtests for the 2006 *Dakota STEP* administration will be constructed in the same manner following the 2005 field test administration. All mathematics items (existing and new) were aligned with South Dakota Mathematics Content Standards (May and July 2005) prior to field testing and construction of the operational forms.

CHAPTER 3: TEST ADMINISTRATION

The administration of the *Dakota STEP* is a shared and coordinated effort involving the Department of Education, its testing contractor, Harcourt Assessment, Inc., and district and school personnel. Harcourt is responsible for printing and shipping test materials to districts as well as receiving and scoring materials from districts following the test administration.

Table 3.1: Key events and dates for the 2005 *Dakota STEP* Administration

January 11–24, 2005	Online enrollment —Test coordinators entered enrollment information used to determine the quantities of <i>Dakota STEP</i> testing materials.
February 28–March 4, 2005	Pretest workshops —Harcourt conducted training sessions for test coordinators at locations throughout the state, covering the test administration process, test security measures, and test coordinator roles and responsibilities. In turn, test coordinators conducted training sessions for building coordinators and teachers/examiners covering their roles and responsibilities.
March 10, 2005	Receipt of <i>Dakota STEP</i> materials in districts
March 14, 2005	Deadline for requesting additional materials
March 23–April 15, 2005	<i>Dakota STEP</i> test administration
April 22, 2005	Deadline for receipt of materials from districts at Harcourt Assessment Scoring Center

3.1 Test Coordinator and Teacher/Examiner Training

District-level **Test Coordinators** serve as the point of contact between the districts, schools, the Department of Education, and Harcourt and are responsible for receiving, verifying, and distributing all test materials to schools, as well as returning materials to Harcourt for scoring. In larger districts, Test Coordinators designate **building coordinators** to oversee some of these responsibilities. They also provide training to building coordinators and **teachers/examiners** regarding test administration procedures and are available during testing to answer questions. **Teachers/examiners** administer the *Dakota STEP* to students and supervise testing sessions.

3.2 Test Security Guidelines

Test administration must be completed in a timely manner and conducted in such a way to ensure appropriate and consistent testing conditions, as well as the secure handling of all test materials. Test security guidelines prohibit activities that could result in an unfair advantage to some students, misrepresentation of results, or exposure of secure test items.

Teachers/examiners administering assessments are not to provide answers to students, copy any portion of the test, or in any way contribute to test security practices which violate the Code of Professional Ethics set for South Dakota Educators. The South Dakota Professional Teachers

Practices and Standards Commission Administrative Rule Codes 24:08:03:01 Obligations to Students, 24:08:03:02 Obligations to the Public, and 24:08:03:03 Obligations to the Profession provide direction for educators. The Code of Ethics for professional administrators is cited in Administrative Rule 24:11:03:01:

Unethical test practices include, but are not limited to—

1. encouraging students to be absent the day of testing
2. encouraging students not to do their best because of the purpose of the test
3. not testing all students
4. reclassifying students solely for the purpose of avoiding state testing
5. failing to provide necessary accommodations during testing (if applicable)
6. interpreting, explaining or paraphrasing a test item
7. copying of the test in any way
8. changing or altering student responses at any time
9. using secure test items for instruction

The South Dakota Department of Education and Harcourt require any person who handles test materials (including test coordinators, building coordinators, and teachers/examiners) to sign a test security agreement prior to the test administration stating that they have been made aware of these regulations and procedures and agree to follow them. Participants involved in the development and review of test items are required to sign a non-disclosure agreement as well. The *Dakota STEP Test Security Agreement* and *Test Security Affidavit* are included in Appendix A.

Dakota STEP test materials must be kept in a locked secure location before, during, and after testing sessions. Upon completion of testing, all scorable documents and test booklets/materials are to be collected and returned to Harcourt Assessment. Any missing documents or other potential breaches of security are to be reported to the Test Coordinator. If the documents are not found or if a security breach is suspected, the South Dakota Department of Education must be notified utilizing the *Report of Test Irregularity Form* (Appendix A).

3.3 Test Accommodations

Limited English Proficient Students

All identified limited English proficiency (LEP) students in grades 3 through 8 and grade 11 must participate in the *Dakota STEP* (NCLB, Title I, Part A, Section 1111). LEP students in their first year of enrollment in a school in the United States are not required to take the reading test portion of the *Dakota STEP* if they have participated in the state-mandated, Title III, annual test of English Language Proficiency, the *Stanford English Language Proficiency* (SELP) test. Newly enrolled students are required to take the mathematics portion of the test; however, only their participation will be used in determining AYP, not their results.

NCLB requires the testing of eligible LEP students to be conducted in English for those LEP students who have attended school in the United States for three or more consecutive school years. If students have fewer than three consecutive school years in the United States, NCLB allows them to take the assessment in the language and form most likely to yield accurate data. In South Dakota,

although the *Dakota STEP* is only provided in English, these students may be granted one or more testing accommodations.

Prior to the administration of the *Dakota STEP*, the district should determine the special accommodations needed by each LEP student in order to yield the most accurate and reliable information on what the student knows and can do in the subjects tested. Such determinations must be made on a case-by-case basis and, when possible, should be made by LEP teams comprised of teachers, counselors, and administrators with specific knowledge of the student involved. The LEP team must consider the individual needs of the student in daily instructional settings as well as the additional needs that arise in a secure testing environment. Accommodations should be specified in writing and maintained in the student's permanent file.

The following accommodations may be considered by the student's LEP team:

Timing/Scheduling

- Breaks between subtests
- Time of day most beneficial to students
- Frequent breaks within a subtest

Setting/Administration

- Test in small group
- Test individually
- Environmental modifications: location with minimal distractions, preferential seating, noise buffers

Presentation Format

- Repeating directions
- Simplifying directions
- Calculator use allowed for the *Mathematics Problem Solving* subtest at grades 4 through 8 and the *Mathematics* subtest at grade 11 (any programming capabilities should be disabled)
- Items read aloud to student (except decoding and *Reading Comprehension* passages)

Response Format

- Visual aids (graph paper, templates, rulers)

Other

- Use of dictionaries (without definitions)
- Use of word lists/glossaries

Students with Disabilities

The *Individuals with Disabilities Education Act of 1997* (IDEA) requires the development of policies and procedures for the inclusion of students with disabilities in state- and district-wide assessments (such as the *Dakota STEP*) and, where necessary, the provision of accommodations for such students. Individualized Education Programs (IEPs) must include accommodations that are necessary in order for the child to participate in those assessments. A student who is perceived to

have a disability based on Section 504 of the *Rehabilitation Act of 1973* (Section 504) must also be afforded accommodations if those accommodations are part of the services provided in the student's Section 504 plan. For the expected small number of students whose participation cannot be accommodated, the Statewide Team-led Alternate Assessment and Reporting System (STAARS) will take the place of the statewide *Dakota STEP* assessment.

Decisions about whether a student participates in the *Dakota STEP* assessment under the prescribed standardized group-testing conditions recommended by Harcourt, participates with accommodations, or takes the alternate assessment must be made on an individual basis by the student's IEP or Section 504 team. Accommodations provided during assessment should be similar to those provided in classroom instruction. If the team decides to provide accommodations, it must specify the type and extent of the accommodations in the student's IEP or Section 504 Plan. The parent/guardian of the student must be made aware of the decision during the development of the student's IEP or Section 504 Plan.

The following accommodations may be considered by the student's IEP or Section 504 team.

Timing/Scheduling

- Time of day most beneficial to students
- Frequent breaks within a subtest

Setting/Administration

- Test individually
- Home/hospital setting
- Environmental Modifications:
 - Special lighting, adaptive furniture, noise buffers, carrels, special seating
- Sign language (ASL, cued speech) for directions

Presentation Format

- Large-print (18 pt. text)
- Braille
- Repeating directions
- Simplifying directions
- Visual aids (magnifiers, templates)
- Audio amplification equipment
- Audio tape, excluding *Reading Comprehension*
- Talking calculators are allowed for the *Mathematics Problem Solving* subtest at grades 4, 5, 6, 7, and 8 as well as grade 11 *Mathematics* (only limited text entry such as some scientific and graphing calculators)
- Readers are allowed for the *Reading Vocabulary, Mathematics (Problem Solving and Procedures), Language, Science, and Social Science* subtests
- Readers may NOT read the *Reading Comprehension* passages, however; they may read the *Reading Comprehension* questions.
- Abacus for visually impaired (VI) students
- Sign language (ASL, cued speech) for directions

Response Format

- Visual aids (graph paper, templates, rulers)
- Special pencil, pen, pencil grip
- Tape recorded response
- Auditory aids
- Bubbler
- Braille

Other

- Augmentive, assistive, or adaptive technology

CHAPTER 4: REPORTS

The *Dakota STEP* student answer documents are scored by Harcourt Assessment immediately after the receipt of test materials from South Dakota Test Coordinators. The multiple-choice test questions are scored by machine. Once scoring is complete, results are analyzed and provided to the South Dakota Department of Education for dissemination.

4.1 Scores Calculated and Reported

CRT scores reported

Individual student *Dakota STEP* results are available on the Student Information Management System (SIMS). They are currently available only for Reading and Mathematics and in 2007 will include Science. The report contains the student's scaled score and achievement level by subject area. In addition, achievement level ranges and achievement descriptors are provided. It helps a student and parent identify what the student is able to do as a result of the attained score. An example of this report is provided in Appendix C.

The **Scaled Score** is a student's test score on a scale that allows for comparisons of scores across test years. Whenever a new version of a test is introduced, there may be variations from previous versions not only in the number of items, but also in the difficulty of items. Scale scores control for these variations and allow comparisons of the achievement levels of students in different test years. Chapter 6 presents more detailed information on the calculation of scale scores for the CRT components.

The **Achievement Level** is one of four levels (Below Basic, Basic, Proficient, Advanced) described in the state Standards and bounded by the cut points recommended by the Standards Setting Committee and approved by the Department of Education. Chapter 5 provides more information regarding the establishment of cut scores and performance levels.

NRT scores reported

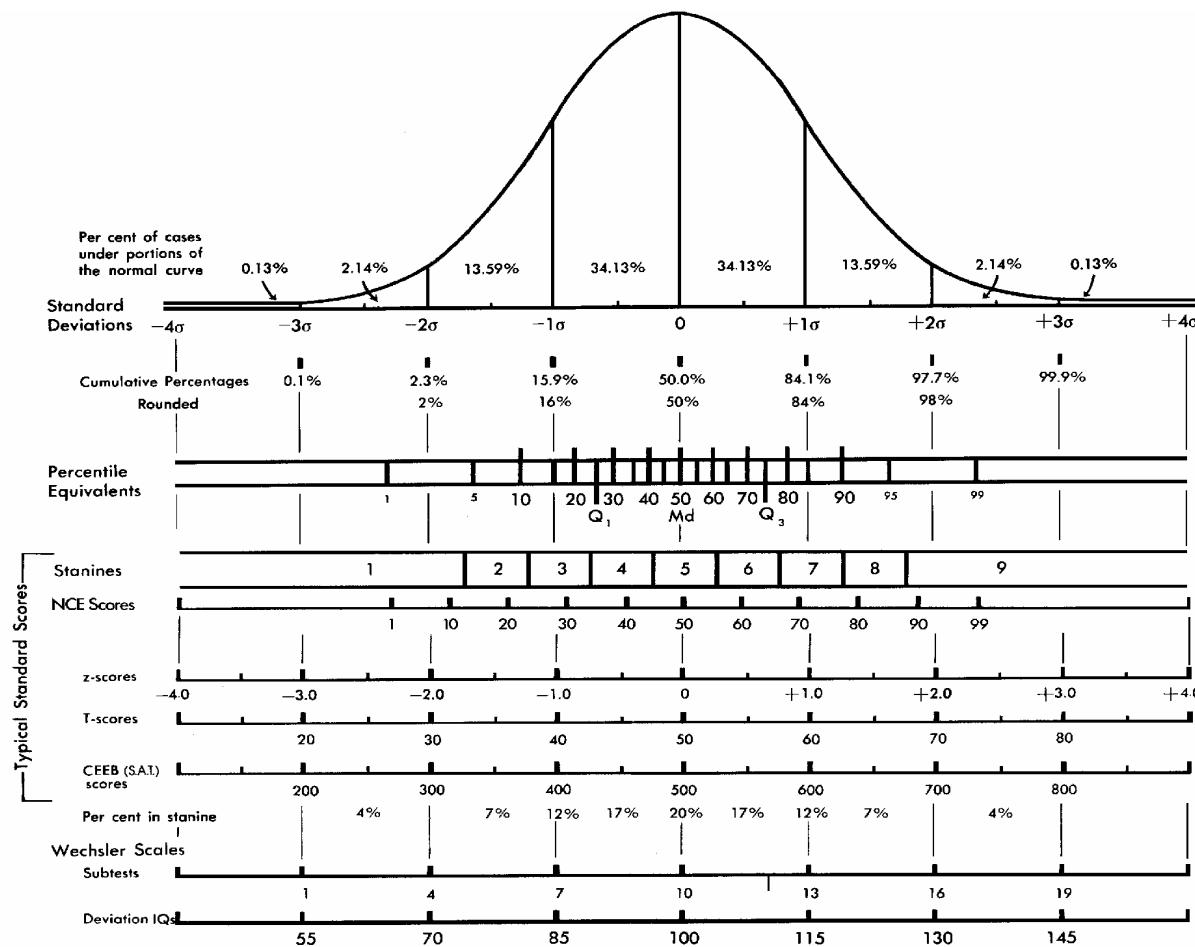
NRT score reports include the **Number Correct** (raw score) and **Scale Score** (described above) for the NRT items. In addition, they also report the following:

Percentile Rank (PR)—a number indicating the percentage of test-takers above whose scores an individual student's score fell. For example, a test-taker with a PR of 80 on a test performed better than 80% of the corresponding reference group. The highest possible PR is 99, meaning that the test-taker scored higher than 99% of the reference group, while the lowest PR is 1, and a PR of 50 is the median.

Stanine Score—the relative standing of a test-taker's score in comparison to the reference group, with a low of 1, a high of 9, and an average of 5. Stanines 1, 2, and 3 are considered *below average*, stanines 4, 5, and 6 are considered *average*, stanines 7, 8, and 9 are considered *above average*. Each

stanine represents an approximately equal unit of achievement. Stanines may correspond to certain ranges of percentile ranks and are typically presented as a curve.

Figure 4.1. Types of standard score scales.



Three types of NRT reports are generated: the **Group Report**, the **Student Report**, and the **Home Report**. The Group Report and the Student Report are based on the same type of information, with the Group Report providing summary information for an entire grade or classroom (for grades 3 through 5) and the Student Report providing individual-level information.

Table 4.1 summarizes the information provided on the Group Report and the Student Report. Examples of all three reports are included as Appendix C. NRT reports are distributed to South Dakota schools in May of each year following the administration and scoring of the assessment.

Table 4.1: Scores Reported on Group and Individual NRT Reports

	Group Report	Student Report
Number Correct	Mean Number Correct for the students in the group	Number Correct for the individual student
Scale Score	Mean Scale Score for the students in the group	Scale Score for the individual student
National Percentile Rank	National Individual Percentile Rank-Stanine (PR-S)	National Percentile Rank (combined with Stanine in single column as <i>National PR-S</i>)
		National Grade Percentile Bands (bar graph), illustrating the range of percentile ranks in which the student's true score would likely place him or her (represents one standard error of measurement below the obtained score to one standard error of measurement above it)
National Stanine	(combined in single column with National Percentile Rank)	National Stanine for individual student (combined with National Percentile Rank in single column as <i>National PR-S</i>)
Mean National NCE (Normal Curve Equivalent)	Mean National NCE (Normal Curve Equivalent)	National NCE
AAC (Achievement/Ability Comparison) Range	Percent in Each AAC (Achievement/Ability Comparison) Range	Achievement/Ability Comparison (AAC Range) for each subtest and domain total

4.2 Appropriate Uses for Scores

Cautions in Interpreting Scores

There are many factors to be considered when looking at test performance. First, it is possible that the student has not yet been exposed to all of the content covered by the test. More broadly, however, it is important to remember that achievement in school and on the test may be affected by one or more of these non-curricular factors:

Student/Home Factors

- The student's general health and physical condition
- The stability of the student's home environment
- The support and/or help the student is able to receive at home
- The student's age relative to other students in the grade
- The ability of the student to get along with others
- The student's school-attendance record
- The student's interest in school

The student's study and work habits

School Factors

- The appropriateness of the level of instruction for the student
- The amount of time available for instruction
- The expectations set for the student
- The appropriateness of school settings/groupings for the student
- The appropriateness of instructional materials and methods for the student

None of these factors invalidates the test results; the *Dakota STEP* measures achievement, regardless of the reasons and circumstances behind it. Consideration of these factors is important, however, when using test results to make judgments about the quality of a student's classroom instruction or when considering measures to improve student achievement.

The individual CRT Report provides a snapshot of student performance. This one-page report, however, only yields performance levels. To appropriately use the CRT scores, the Standards Based Report should be the driving mechanism schools use to evaluate curriculum and individual student performance.

4.3 Program Evaluation Implications

The NCLB accountability handbook determines implications—good or bad—based on student performance on *Dakota STEP*.

CHAPTER 5: SETTING PERFORMANCE STANDARDS

5.1 Introduction

The *performance levels* for the *Dakota STEP* results are established by Standards Setting Committees based on the four proficiency levels described in the State Academic (Content) Standards—Below Basic, Basic, Proficient, and Advanced. The Committee participants establish cut points through an item-level analysis of the *Dakota STEP* that represent the threshold between each level of performance. Selection of committee members is made from those familiar with the *Dakota STEP* from prior committee participation and others that include teachers from the targeted grade levels and subject area(s). Standard Setting Committees meet to establish new cut points following the operational administration of a revised/new *Dakota STEP* subtest.

5.2 Performance Level Descriptors

The South Dakota Academic Standards provide performance descriptors for three proficiency levels: Basic, Proficient, and Advanced. The performance descriptors are written at a broad level and are applicable to all content domains.

Advanced: A student performing at the advanced level exceeds expectations for that grade level. The student is able to perform the content standards for the grade at a high level of difficulty, complexity, or fluency.

Proficient: A student performing at the proficient level meets expectations for that grade level. The student is able to perform the content standards for the grade at the level of difficulty, complexity, or fluency specified by the standards.

Basic: A student performing at the basic level performs below expectations for that grade level. The student is able to perform some of the content standards for the grade below the level of difficulty, complexity, or fluency specified by the grade level standards.

A student performing in the Below Basic level is unable to perform the content standards for the grade; therefore, no description is provided for this performance level.

5.3 Method of Setting Cut Points

The performance level descriptors are translated into *Dakota STEP* cut points by Standards Setting Committees; for the 2005 *Dakota STEP* Reading assessment, the Standards Setting Committee met in May 2005. Committee meetings are facilitated by the Buros Institute, with Department of Education and Harcourt staff present.

Grade and content level teachers were solicited by the South Dakota Department of Education to participate in the standard setting activity. Following an orientation and practice activities, panelists were asked to classify operational items on the *Dakota STEP* test associated with their grade and subject into performance levels. Items were classified into the Just Basic, Just Proficient, and Just

Advanced categories if the panelist believed that a student who was just at the borderline of that performance category had at least a .67 probability of answering the item correctly. The total number of items assigned by a panelist to the Just Basic category served as the estimate of that panelist's cut point for the Basic level. These values were averaged across panelists to obtain the overall point estimate for the Basic cut point. The Proficient cut point was determined by averaging across panelists the total number of items assigned to the Just Basic and Just Proficient categories. The Advanced cut point was determined in a similar manner.

Standard errors of estimate were used to recommend probability ranges for these cut points. The final decision regarding these cut points is a policy decision made by the South Dakota Department of Education.

5.4 Results

Table 5.1 provides the raw scores and corresponding scale scores assigned to each performance level by the standards setting committee and the percentage of test takers classified at each level for the 2005 *Dakota STEP* CRT Reading assessments.

Table 5.1: 2005 Dakota STEP CRT Reading Assessments

Grade	Below basic		Basic		Proficient		Advanced	
	Score Range Raw scores (scale scores)	Percentage of students	Score Range Raw scores (scale scores)	Percentage of students	Score Range Raw scores (scale scores)	Percentage of students	Score Range Raw scores (scale scores)	Percentage of students
3	0 – 4 (497 or below)	0.0	5 – 23 (498 – 594)	16.4	24 – 40 (595 – 663)	64.4	41 – 48 (664 or above)	19.2
4	0 – 6 (524 or below)	0.0	7 – 25 (525 – 606)	14.0	26 – 41 (607 – 667)	55.9	42 – 51 (668 or above)	30.1
5	0 – 6 (543 or below)	0.0	7 – 26 (544 – 620)	17.8	27 – 43 (621 – 677)	55.7	44 – 56 (678 or above)	26.5
6	0 – 5 (555 or below)	0.0	6 – 25 (556 – 635)	19.8	26 – 42 (636 – 691)	51.7	43 – 56 (692 or above)	28.6
7	0 – 5 (564 or below)	0.0	6 – 27 (565 – 650)	20.7	28 – 44 (651 – 708)	58.4	45 – 56 (709 or above)	20.8
8	0 – 5 (573 or below)	0.0	6 – 26 (574 – 667)	23.6	27 – 41 (668 – 727)	64.4	42 – 49 (728 or above)	12.0
11	0 – 5 (624 or below)	0.1	6 – 24 (625 – 718)	28.5	25 – 35 (719 – 779)	61.2	36 – 40 (780 or above)	10.2

Table 5.2 provides the raw scores and corresponding scale scores assigned to each performance level and the percentage of test takers classified at each level for the existing *Dakota STEP* Mathematics CRT assessment.

Table 5.2: Existing Dakota STEP CRT Mathematics Assessment

Below basic	Basic	Proficient	Advanced
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Grade	Score Range Raw scores (scale scores)	Percentage of students	Score Range Raw scores (scale scores)	Percentage of students	Score Range Raw scores (scale scores)	Percentage of students	Score Range Raw scores (scale scores)	Percentage of students
3	0 – 13 (505 or below)	0.0	14 – 59 (506 – 589)	24.4	60 – 88 (590 – 645)	52.9	89 – 105 (646 or above)	22.6
4	0 – 7 (517 or below)	0.0	8 – 49 (518 – 613)	21.1	50 – 79 (614 – 666)	52.0	80 – 105 (667 or above)	26.8
5	0 – 10 (554 or below)	0.0	11 – 50 (555 – 635)	23.7	51 – 78 (636 – 682)	47.0	79 – 105 (683 or above)	29.2
6	0 – 15 (577 or below)	0.1	16 – 60 (578 – 659)	33.1	61 – 85 (660 – 707)	44.9	86 – 105 (708 or above)	22.0
7	0 – 10 (591 or below)	0.1	11 – 51 (592 – 674)	34.3	52 – 85 (675 – 735)	51.4	86 – 105 (736 or above)	14.2
8	0 – 7 (591 or below)	0.0	8 – 51 (592 – 686)	34.1	52 – 80 (687 – 735)	45.0	81 – 105 (736 or above)	20.8
11	0 – 3 (586 or below)	0.0	4 – 46 (587 – 703)	27.0	47 – 80 (704 – 759)	50.0	81 – 105 (760 or above)	23.0

CHAPTER 6: CALIBRATION, LINKING (EQUATING), AND SCALING

This chapter describes the three-step process of *calibration*, *linking*, and *scaling* used for the *Dakota STEP* CRT to transform performance on each test item into a scaled score for an entire subtest. In Reading, this process was carried out in 2005, with the introduction of new CRT items based on the revised State Academic (Content) Standards.

The process described utilizes *Item Response Theory (IRT)* principles and models, which are based on the idea that characteristics of individual items can be used to produce estimates of students' true levels of achievement. The particular model used in calibration and linking for the *Dakota STEP* is the one-parameter Rasch model.

6.1 Calibration

In calibration, student responses to each item are analyzed to derive estimates of item difficulty and student achievement. The Rasch item response model describes, for each item, the probability of a person with achievement level θ answering the item correctly ($P(\theta)$) as a function of his or her achievement level (θ) and the difficulty of the item (δ):

$$P(\theta) = \frac{e^{(\theta-\delta)}}{1 + e^{(\theta-\delta)}}$$

where e is a constant, equal to 2.718.

Item difficulty and student achievement are estimated using the joint maximum likelihood (JML) method, by entering student responses into the WINSTEPS computer software program. The WINSETPS program seeks the best-fitting Rasch model estimates of item difficulty and student achievement level simultaneously.

6.2 Linking (Equating) Procedure

In linking (equating), the estimates of student achievement resulting from calibration are adjusted to facilitate comparisons of the scores of students in a given grade level from different test years and monitoring of a student's progress from one year to the next. Linking is accomplished using a common linking item design with the fixed item parameter anchor method. Although new CRT items were introduced in the 2005 *Reading Comprehension* subtest, there was a common set of Stanford 10 items that appeared on both the old and new versions of the test. These were used as linking items to make scores on the 2005 test comparable to scores on the previous version of the test.

6.3 Scale Score Creation

After calibration and linking, estimates of student achievement exist as scores on the Stanford 10 θ scale. Estimates of student ability are placed on the Stanford 10 vertical scaled score (SS) metric using the following linear transformation:

$$SS = 35 \times \theta + 600$$

Raw Score (RS) to Scale Score (SS) conversion tables and item response theory (IRT) standard error of measurement (SEM) for the 2005 *Dakota STEP* CRT Reading and Mathematics assessments are provided in Appendix E. This IRT SEM is different from the Classical Test Theory (CTT) SEM shown in Chapter 7. The IRT SEM varies depending on the individual's scale score while the CTT SEM, based on the raw score total, remains constant. Appendix E also shows the upper (SS+1SEM) and the lower (SS-1SEM) bounds for an approximate 68% confidence interval for each SS.

The RS and SS frequency distributions for all grades and subjects are provided in Appendix F. Scale Score summaries for the 2005 *Dakota STEP* CRT Reading and Mathematics assessments are provided in Tables 6.1 and 6.2.

Table 6.3 provides the standard error at each performance classification cut point in the scale score metric.

Table 6.1: Scale Score (SS) Summary for *Dakota STEP* Reading

Grade	N-count	Mean	Standard Error (SE)
3	9,991	634.04	37.98
4	10,063	646.19	37.32
5	10,360	654.55	33.98
6	10,528	667.62	36.08
7	10,861	679.25	33.94
8	10,676	692.49	32.65
11	9,352	736.97	37.08

Table 6.2: Scale Score (SS) Summary for *Dakota STEP* Mathematics

Grade	N-count	Mean	Standard Error (SE)
3	10,010	616.33	37.43
4	10,086	643.69	35.34
5	10,368	662.09	35.15
6	10,539	677.30	38.37
7	10,874	692.92	38.79
8	10,679	704.12	37.39
11	9,353	730.45	39.29

Table 6.3: SEM of SS cuts for Performance Level

Grade	Performance Level	Reading		Mathematics	
		Minimim SS cut	SS SEM	Minimim SS cut	SS SEM
3	Basic	498	19	506	10
	Proficient	595	11	590	7
	Advanced	664	14	646	10
4	Basic	525	15	518	13
	Proficient	607	11	614	7
	Advanced	668	14	667	9
5	Basic	544	16	555	12
	Proficient	621	10	636	7
	Advanced	678	12	683	8
6	Basic	556	16	578	10
	Proficient	636	10	660	7
	Advanced	692	12	708	10
7	Basic	565	16	592	11
	Proficient	651	10	675	7
	Advanced	709	12	736	9
8	Basic	574	18	592	13
	Proficient	668	11	687	7
	Advanced	728	14	736	9
11	Basic	625	17	587	18
	Proficient	719	12	704	7
	Advanced	780	18	760	9

CHAPTER 7: RELIABILITY

This chapter presents measures of reliability for the CRT tests as well as measures of consistency and accuracy for classification of students into performance levels.

The classical test theory (CTT) item statistics of p-value and point-biserial correlation for all grades and all subjects for the *Dakota STEP* in 2005 are provided separately in Appendix D. The distribution summary tables for the p-values and the point-biserials are provided in Appendix J and Appendix K respectively as well. These CTT item statistics are included to document the properties of the test items although they were not used in scoring the test. Also Differential Item Functioning (DIF) investigation results for all items and their summaries are provided separately in Appendices H and I. Note that the DIF classifications have three categories: “A” represents no or negligible DIF, “B” represents intermediate DIF, and “C” represents large DIF. For these results the Mantel-Haenszel approach for DIF was used and the classifications of A, B, and C were based on the DIF classification rules commonly referred to as the “ETS DIF Classification Rules”¹. The DIF analysis was conducted for Male vs Female, White vs Native American, and Non-IEP vs IEP group comparisons. Other subgroups were not included due to an insufficient number of examinees (see Appendix G for the number of students in various subgroups). Test level classical test theory based statistics (raw score means and standard deviations, Coefficient Alpha, and standard error), item counts, and examinee counts are provided in Appendix G for both the entire population of examinees as well as subgroups broken down by gender, ethnicity, and accommodations (LEP or IEP).

The *p-value* is the proportion of students that answer an item correctly. A high p-value means that an item is easy; a low p-value means that an item is hard.

The *point-biserial correlation* is an index of the association between item score and total test score. It shows the ability of the item to discriminate between low-ability and high-ability students. An item with a high point-biserial correlation discriminates the low- and the high-ability students better than a low point-biserial correlation.

The point-biserial correlation provided in this report is a “corrected” point-biserial correlation. In the “corrected” point-biserial correlation calculation, the score of the item of interest does not contribute to the total score; therefore, it avoids the inflation of the point-biserial correlation value when the item of interest is included in the total score.

7.1 Reliability of Raw Scores

Reliability indices for the 2005 *Dakota STEP* CRT assessment were computed using KR-20, which is equivalent to the Cronbach alpha:

¹ Zieky, M. (1993). Practical questions in the use of DIF statistics in item development. In P.W. Holland & H. Wainer (Eds.), *Differential item functioning: Theory and practice*. (pp.337-364). Hillsdale, NJ: Lawrence Erlbaum.

$$KR_{20} = \frac{k}{k-1} \left(1 - \frac{\sum_i (pq)_i}{\hat{\sigma}_x^2} \right),$$

where k is the number of items in the test, pq is the variance of the i th item, and $\hat{\sigma}_x^2$ is the total test variance. Tables 7.1 and 7.2 provide reliability estimates based on raw scores for the *Dakota STEP* CRT Reading and Mathematics assessments.

Table 7.1: 2005 Dakota STEP CRT Reading Assessment Reliability and Classical Test Theory (CTT) SEM

Grade	No. of Items	N-count	Mean	Standard Deviation (SD)	Reliability	CTT SEM
3	48	9,991	32.71	8.49	0.89	2.82
4	51	10,063	35.80	8.65	0.89	2.86
5	56	10,360	36.26	9.66	0.89	3.15
6	56	10,528	35.23	10.20	0.91	3.13
7	56	10,861	36.02	9.78	0.89	3.17
8	49	10,676	32.42	8.11	0.87	2.97
11	40	9,352	27.70	6.81	0.86	2.57

Table 7.2: 2005 Dakota STEP CRT Mathematics Assessment Reliability and Classical Test Theory (CTT) SEM

Grade	No. of Items	N-count	Mean	Standard Deviation (SD)	Reliability	CTT SEM
3	105	10,010	72.49	18.62	0.95	4.11
4	105	10,086	66.77	18.42	0.95	4.25
5	105	10,368	65.58	18.97	0.95	4.32
6	105	10,539	69.12	19.43	0.95	4.19
7	105	10,874	61.96	21.03	0.96	4.36
8	105	10,679	61.23	20.37	0.95	4.39
11	105	9,353	62.03	20.87	0.96	4.37

The range of the raw score CTT reliabilities of the *Dakota STEP* CRT Reading assessment is from 0.86 to 0.91. For the CRT Mathematics assessment, the CTT reliabilities range from 0.95 to 0.96. Mathematics has higher reliabilities than Reading across all grades. Note that the CTT reliability has the tendency to increase as the number of items in a test increases.

7.2 Standard Error of Measurement for Raw Scores

The overall standard error of measurement (SEM) for raw scores was computed using the traditional formula:

$$SEM = SD\sqrt{1 - reliability}$$

where SD stands for standard deviation of the total test.

The CTT SEM represents the uncertainty related to the raw score (RS), which is a constant across all raw scores. It is the standard deviation of the error score contained in the RS. Under the typical CTT assumptions, $RS \pm 1.96 * SEM$ can be used as a 95% confidence interval for the true score for a specific examinee. Tables 7.1 and 7.2 provide the CTT SEM information (with reliability) for the *Dakota STEP* CRT Reading and Mathematics tests. These estimates, based on raw scores, have been calculated for the total set of items.

The raw score analysis summary by subgroups is also provided in Appendix G. Note that the Subgroups include gender (Male, Female), ethnicity (White, Black, Hispanic, Asian, Native American), IEP status, and LEP status. The statistics in the summary include: number of students tested, number of students with valid scores, number of Items, raw score (RS) mean, RS standard deviation (SD), coefficient alpha (RS reliability), and RS classical test theory (CTT) standard error of measurement (SEM).

7.3 Consistency and Accuracy of Performance Level

Using the SS performance level cut points, students are classified into one of four performance levels—Below Basic, Basic, Proficient, or Advanced. Table 7.3 shows the Frequency Distribution of the Performance Levels (PL) for 2005 *Dakota STEP* CRT Reading and Mathematics assessments.

Table 7.3: 2005 Dakota STEP CRT Reading and Mathematics Frequency Distribution of the Performance Levels (PL)

	Grade	N-Count	Percent			
			Below Basic	Basic	Proficient	Advanced
Reading	3	9,991	0.0	16.4	64.4	19.2
	4	10,063	0.0	14.0	55.9	30.1
	5	10,360	0.0	17.8	55.7	26.5
	6	10,528	0.0	19.8	51.7	28.6
	7	10,861	0.0	20.7	58.4	20.8
	8	10,676	0.0	23.6	64.4	12.0
Mathematics	11	9,352	0.1	28.5	61.2	10.2
	3	10,010	0.0	24.4	52.9	22.6
	4	10,086	0.0	21.1	52.0	26.8
	5	10,368	0.0	23.7	47.0	29.2
	6	10,539	0.1	33.1	44.9	22.0
	7	10,874	0.1	34.3	51.4	14.2
	8	10,679	0.0	34.1	45.0	20.8
	11	9,353	0.0	27.0	50.0	23.0

Livingston and Lewis's method was applied to derive measures of the decision accuracy and consistency of the classifications. According to Livingston and Lewis, accuracy is "the extent to which the actual classifications of the test takers . . . agree with those that would be made on the basis of their true score, if their true scores could somehow be known"; and consistency is "the agreement between classifications based on two non-overlapping, equally difficult forms of the test" (1995, p.180).

In addition, Livingston and Lewis point out that accuracy estimates depend on the level of "agreement between classifications based on an observable variable (scores on ... a test) and classifications based on an unobservable variable (the test takers' true scores)" (1995, p.189). Since these true scores are not available, Livingston and Lewis provide a method for estimating the true score distribution using a four-parameter beta function. Consistency is estimated using actual test response data to create two (artificial) parallel half forms of the test and comparing classifications on those alternate forms.

The estimates of the decision accuracy and decision consistency of the 2005 Dakota STEP CRT with respect to the cut points for Proficient or above versus Basic or below, are provided in Table 7.4 for both Reading and Mathematics for grades 3 through 8 and grade 11.

Table 7.4: 2005 Dakota STEP CRT Reading and Mathematics Estimated Consistency and Accuracy of Decisions (Percentage)

Grade	Reading		Mathematics	
	Accuracy	Consistency	Accuracy	Consistency
3	94	92	95	93
4	95	93	95	94
5	94	92	95	93
6	94	92	94	92
7	94	91	95	93
8	92	88	94	92
11	91	87	95	93

For Reading, the accuracy of the decision to classify the students into Proficient or above versus Basic or below ranges from 91% to 95% across all grades; the consistency of the decision ranges from 87% to 93%. For Mathematics, the accuracy of the decision to classify the students into Proficient or above versus Basic or below ranges from 94% to 95%; the consistency of the decision ranges from 92% to 94%. Note that in all instances decision accuracy is greater than decision consistency.

CHAPTER 8: VALIDITY

Validity refers to the adequacy and appropriateness of the interpretations made from assessments, with regard to a particular use. Of all the essential characteristics of a good test, none surpasses validity. If a test is not valid for the purpose used, it has little or no value. Validity is specific. That is, a test may be valid for one purpose and not others. For example, a spelling test administered to determine a student's achievement in grammar is very likely to be deemed invalid.

Some key aspects of validity are as follows:

- Validity is concerned with the general question, "To what extent will this assessment information or test score help me make appropriate decisions?"
- Validity refers to the decisions that are made from assessment information, not the assessment approach or test itself. It is not appropriate to say, "This assessment information is valid" unless you also say for what decisions or groups it is valid. Keep in mind that assessment information validity for one decision or group of students is not necessarily valid for others.
- Validity is a matter of degree; it does not exist on an all-or-nothing basis. Think of assessment validity in terms of categories: highly valid, moderately valid, and invalid.
- Validity involves an overall evaluative judgment. It requires an evaluation of the degree to which interpretations and uses of assessment results are justified by supporting evidence. Educators also must consider assessment results in terms of the consequences of those interpretations and uses.

This technical report will focus on content and construct validity.

8.1 Content and Curricular Validity

To ensure the validity of the *Dakota STEP*, alignment studies are conducted to verify that the standards-based (CRT) items of the assessment are aligned with the State Academic (Content) Standards for each corresponding subject and grade level. NCLB requires that these analyses be conducted by an objective third party. The Buros Institute for Assessment Consultation and Outreach (BIACO) conducts the alignment studies and provides results for the South Dakota Department of Education.

Reading Comprehension

The initial alignment study for the revised *Reading Comprehension* assessment was conducted by BIACO with South Dakota teachers in December of 2004. The distribution of items across proficiency levels is reported at the Indicator and for the Core Standards. Without exception, Indicator 1 had the most items identified as matching the Core Standards in reading across all grade levels. Indicator 3 had the fewest matches, with no matches at grades 3 and 4, and 7 matches at grade 10. Indicator 2 typically had 10 or more matches except for grade 5 (4 matches) and grade 8 (9 matches). Indicator 4 varied in the number of matches from no matches at grade 9 to 22 matched items at grade 6. A summary of the Reading Alignment decisions is shown in Table 8.1. Results were not available for the alignment study of the grade 11 assessment.

Table 8.1: December 2004 Reading Alignment Results

Indicator	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Grade 8
1	38	49	55	30	35	37
2	14	10	4	16	12	9
3	0	0	2	1	1	4
4	6	1	3	22	10	6
“No Match”	3	0	0	1	2	1
Total Aligned	61	60	64	70	60	57

The analysis of the BIACO alignment study identified several items for which discrepancies between the intended indicator and standard (as identified by Harcourt) and the teachers' assignments of these items to the indicator and standard. Therefore, it was decided that another review be conducted where grade level and content area teachers from South Dakota would be asked to reconcile these discrepancies. The "Reading Reconciliation Project" was conducted in May 2005.

Prior to the May 2005 reconciliation project, the alignment of items to the indicators suggested by Harcourt ranged from 43% (grade 5) to 87% (grade 6). Following the reconciliation project, the alignment of items to the indicators as suggested by Harcourt ranged from 57% (grade 5) to 91% (grade 6). Overall, the highest average level of agreement (by panel) was at high school (88%), followed by middle school (74%), and elementary (69%). The majority of the remaining items were either aligned to the indicator recommended by the BIACO-facilitated December 2004 study or another indicator.

On the standard level, agreement was only counted when both the indicator and standard matched those suggested by Harcourt. Prior to the May 2005 reconciliation, the agreement between the panels ranged from 27% (grade 7) to 82% (grade 6). Following the reconciliation project, the alignment of items to the indicators and standards as suggested by Harcourt ranged from 43% (grade 7) to 88% (grade 6). The highest level of agreement (by panel) was at high school (85%), followed by middle school grades (66%), and elementary grades (59%). The majority of the remaining items were either aligned to the indicator and standard recommended by the BIACO-facilitated December 2004 study or another indicator and standard. Only 3 items were not matched to any of the South Dakota indicators and standards.

The alignment results are summarized, by indicator and standard, in Table 8.2. The results in the left-hand side of the table indicate the agreement between the initial Harcourt alignment and the BIACO-facilitated December 2004 study. The results on the right-hand side of the table indicate the agreement after the reconciliation project.

The agreement between the intended content indicator and standard and the teachers' ratings improved substantially as a result of the reconciliation project. However, there are still some tests for which the match between the intended content indicator and standard and the teachers' ratings is lower than desirable. For alignment studies, it is acceptable if the agreement level is 75% or higher. Using this criterion, results from grades 3, 4, 5, 7, and 8 are still concerning. Many of the items appear to align to indicators and standards other than what Harcourt originally intended as indicated

by both the December 2004 panel recommendations and the recommendations of the May 2005 reconciliation panel.

Table 8.2: Results Before and After Reading Reconciliation Project (May 2005)

	Pre-Reconciliation (Post 12-04 Alignment)		Post-Reconciliation			
	Not Matched to Harcourt	Matched to Harcourt	Matched to Harcourt	Not Matched To Harcourt	Matched to prior Buros alignment study	Matched to other Indicator/ Standard
INDICATOR						
Grade 3	25 (52%)	23 (48%)	35 (73%)	10 (21%)	1 (2%)	2 (4%)
Grade 4	30 (60%)	20 (40%)	39 (78%)	9 (18%)	2 (4%)	0 (0%)
Grade 5	24 (43%)	32 (57%)	32 (57%)	23 (41%)	1 (2%)	0 (0%)
Grade 6	49 (87%)	7 (13%)	51 (91%)	4 (7%)	1 (2%)	0 (0%)
Grade 7	25 (45%)	31 (55%)	33 (59%)	20 (35%)	2 (4%)	1 (2%)
Grade 8	24 (49%)	25 (51%)	35 (71%)	14 (29%)	0 (0%)	0 (0%)
Grade 11	*	*	35 (88%)	*	5 (12%)	0 (0%)
INDICATOR & STANDARD						
Grade 3	19 (40%)	29 (60%)	32 (67%)	13 (27%)	1 (2%)	2 (4%)
Grade 4	18 (36%)	32 (64%)	28 (56%)	20 (40%)	2 (4%)	0 (0%)
Grade 5	18 (32%)	38 (68%)	30 (54%)	25 (45%)	1 (2%)	0 (0%)
Grade 6	46 (82%)	10 (18%)	49 (88%)	7 (12%)	0 (0%)	0 (0%)
Grade 7	15 (27%)	41 (73%)	24 (43%)	26 (46%)	5 (9%)	1 (2%)
Grade 8	22 (45%)	27 (55%)	33 (67%)	14 (29%)	2 (4%)	0 (0%)
Grade 11	*	*	34 (85%)	*	6 (15%)	0 (0%)

*The December 2004 alignment study conducted by BIACO did not include 11th Grade

Mathematics

Due to the revision of the South Dakota Mathematics content standards, an alignment study was conducted by BIACO with South Dakota teachers in May 2005. Existing items (both Stanford 10 and standards-based items) as well as new items approved by the January 2005 bias/content review committees were all reviewed to ensure that the revised 2006 operational form would fully assess the new content standards.

The test blueprints for the revised assessment require a total of 7 items for each content indicator. All of the goals across the grade-level tests matched at least 4 items. The Algebra goal had the largest number of matches and the Measurement goal had the smallest number of matches. The results of the alignment study are presented in Table 8.3.

Table 8.3: May 2005 Mathematics Alignment Results

Goal/Indicator	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Grade 8	Grade 11
Algebra	29	21	43	37	36	27	25
1	6	7	11	11	13	8	5
2	6	5	9	7	5	5	9
3	8	10	12	14	10	4	4
4	9	10	11	5	8	10	7
No Match	9	3	4	8	6	13	16
Geometry	19	19	20	19	15	20	9
1	10	13	9	11	9	9	5
2	9	6	11	8	6	11	4
No Match	3	1	1	2	8	2	6
Measurement	7	12	14	15	11	10	7
1	7	12	14	15	11	10	7
No Match	3	2	5	0	2	0	10
Number Sense	25	28	36	24	31	36	26
1	9	13	10	10	12	15	11
2	8	7	17	7	8	8	10
3	8	8	9	7	11	13	5
No Match	5	3	10	1	5	3	7
Statistics & Probability	7	15	14	15	13	17	4
1	5	8	8	8	8	9	4
2	2	7	6	7	5	8	0
No Match	7	1	2	2	4	1	12
Total No Match	27	10	22	13	25	19	51
Total Aligned	114	116	149	123	131	129	122

The standards-based items showed a moderate relationship to the composite set of South Dakota Core Standards and Indicators for Mathematics. Across the Mathematics tests, teachers matched a minimum of 58% (Grade 11) and maximum of 91% (Grade 4) of the test questions to the grade and core standards. For items where no match was indicated, there does not appear to be an acceptable alignment of the items to the mathematics indicators.

The best alignment was found in the Goal areas of Measurement and Number Sense; the poorest alignment occurred in the Goal areas of Algebra and Statistics and Probability. It was frequently the case that there were too few items identified at the Basic or Advanced level to be able to make confident decisions at the individual student level regarding level of proficiency in mathematics at the indicator level.

Based on the results of the alignment study, Harcourt developed and/or revised additional items in order to achieve the requirements of the revised test blueprint. These items were reviewed by South Dakota teachers for bias and sensitivity as well as content alignment in July of 2005. With input and suggested revisions from the participants, 100% of these items were found to align with the content standards and were approved for field testing.

8.2 Correlation Among Substrands

The spring 2005 *Dakota STEP* CRT Reading assessment utilizes the Stanford 10 *Reading Comprehension* subtest items to assess South Dakota Reading Standards. At grades 3 and 4, Stanford 10 items from the *Word Study Skills* and *Reading Vocabulary* subtests (or “Substrands”) are also aligned with the state standards. Tables 8.4 and 8.5 report the correlation matrices among the substrands and the total Reading assessment for grades 3 and 4 respectively. The correlations are based on the raw scores and can be interpreted as one type of validity information for the internal structure of the test. The Grade 3 Reading test does not utilize the substrand of *Reading Vocabulary*, only *Word Study Skills*. The Reading assessment for grades 5 through 8 and grade 11 are aligned with the *Reading Comprehension* subtest (substrand) only.

Table 8.4: Correlation Among Substrands for Dakota STEP CRT Reading Grade 3

Strand	Total Reading	Word Study Skills	Reading Comprehension
Total Reading	1	0.67	0.99
Word Study Skills		1	0.58
Reading Comprehension			1

The highest correlation is 0.99 for Total Reading and the *Reading Comprehension* substrand. The correlation for the *Word Study Skills* substrand with Total Reading is 0.67. The correlation between *Word Study Skills* and *Reading Comprehension* is 0.58. The latter two low correlations are due to the small number of items in the *Word Study Skills* subtest. The total number of CRT items for grade 3 is 48, out of which 42 are *Reading Comprehension* items and 6 are *Word Study Skills* items.

Table 8.5: Correlation Among Substrands for Dakota STEP CRT Reading Grade 4

Substrand	Total Reading	Word Study Skills	Reading Vocabulary	Reading Comprehension
Total Reading	1.00	0.53	0.51	0.99
Word Study Skills		1.00	0.28	0.47
Reading Vocabulary			1.00	0.44
Reading Comprehension				1.00

The lowest correlation is 0.28 between *Word Study Skills* and *Reading Vocabulary*; the highest is 0.99 between Total Reading and *Reading Comprehension*. Again, the low correlations between the substrands (except for *Reading Comprehension*) and the total Reading test, or between substrands, are due to the small number of items aligned with state standards in the *Word Study Skills* (3 items) and the *Reading Vocabulary* (3 items) subtests. The *Reading Comprehension* subtest has 45 items. The Mathematics test was not analyzed because it does not have multiple substrands at any grade level.

8.3 Correlation among Different Strands

Table 8.6 reports the correlation matrices between the *Dakota STEP* CRT Reading assessment and the CRT Mathematics assessment. The range of the correlations is from 0.71 in grade 11 to 0.80 in grade 3.

Table 8.6: Correlation between *Dakota STEP* CRT Reading and Mathematics Assessments

Grade	Correlation
3	0.80
4	0.78
5	0.79
6	0.79
7	0.78
8	0.74
11	0.71

CHAPTER 9: QUALITY CONTROL PROCEDURES

9.1 Quality Control for Item Development and Test Construction

The processes and guidelines used in test and item development described in Chapter 2, Criterion-referenced Test Development, have been designed to ensure that the resulting items meet specific criteria for content and format and serve as the primary means of controlling the quality of items. Three additional quality control measures for items and test forms are described below.

Harcourt Item Review

Before Harcourt submits any item to a committee or the Department of Education, a lead assessment specialist within the content area (outside of the project) reviews each item for content accuracy and adherence to item format guidelines. If any inconsistencies or errors are found, the reviewer works with the assessment specialist assigned to the project to refine the items. This ensures that mistakes are identified and corrected before items are reviewed in committee.

Final Form Review

After the test forms have been approved by the Department of Education, Harcourt conducts a Final Form Review of test forms, pull lists, and test maps (scoring keys) to identify any remaining errors that would render an item invalid. Senior-level assessment specialists (outside of the project) review each test form for errors in content, alignment, and form building. If errors are found, the reviewer notifies the appropriate content lead on the project for resolution.

Publishing Review

Harcourt's Publishing Quality Assurance group is responsible for performing final editorial checks of test materials prior to their release for printing. These checks include performing a cold read, taking the test, and cross-checking interrelated documents (i.e., test booklets, answer documents, and *Directions for Administering*) for accuracy, consistency, and functionality. Once any issues have been addressed, the Quality Assurance group provides final authorization to print test materials.

9.2 Quality Control for the Receipt of Non-Scannable Documents

Harcourt's Scoring Center has established a precise check-in procedure for the receipt of non-scannable documents, which include test materials other than answer documents, such as used and unused student test booklets (except grade 3 booklets, which are scannable), *Directions for Administering*, and mathematics reference sheets and rulers. At receiving time, the number of non-scannable documents received from schools is compared to the expected receipts based on the materials delivered to the schools. Those materials which can be reused are placed back into stock. Those materials which cannot be reused are destroyed by shredding. Prior to shredding any non-scannable materials, a manual check of all materials is performed to ensure that no scannable documents exist with the non-scannable documents.

9.3 Quality Control for Data Preparation

The Scoring Center uses a check-in procedure for answer documents similar to the one used for non-scannable documents described above. At receiving time, the number of answer documents received from schools is compared to the expected receipts as indicated by the enrollment data for each school to determine that all shipments have been received. In addition, answer documents are checked to determine that no unusual circumstances exist (i.e., ink marks, water damage, paper tears, etc.) and that the documents have been correctly assembled. This is the *receiving edit*. If all specified conditions have been met, the order will be entered into a document tracking computer program, the SCORFLOW Management System, to show that it has arrived and met all conditions necessary for processing. If an order has not met conditions for processing, it will be placed on *alert status*. Most alerts are capable of being resolved by Harcourt's Alert Hotline, which works directly with the concerned school or district. Certain designated alert conditions will be reported to Harcourt's Program Coordinator for resolution. As soon as an order's alert has been resolved, the order will be cleared for processing and placed on the SCORFLOW Management System. Alerts not resolved after three attempts by Harcourt will result in scores for the concerned school/district being invalidated.

9.4 Quality Control in Document Tracking

Boxes containing all scannable documents are labeled with unique tracking barcodes to identify and track each box throughout the scanning process. The labels are then logged on scan logs, which list the ID number of each box scanned, the count of scanned documents in each, the name of the scan program used, the name of the scanner operator, and the date and time of scanning. The scan boxes are stored in sequential order on storage shelves in a secure warehouse.

In addition to the ID number for each box, the scanners are programmed to assign a unique number to each student answer document within a box, resulting in a "scan/batch" number, which can be used to verify the processing of all batches and to find a particular student record for editing and verification if needed. The number is printed onto the edge of each scanned sheet as it runs through the scanner. To insert the CDS code into each student record, the scanner programs will be designed to use the school header sheet as the first sheet of every school batch (within each grade). This number will be used later in the process to verify an accurate CDS code for each student.

A complete listing of all scan boxes will be generated periodically and used by the project manager to ensure that all material received was scanned. These same lists will be used by the data processing staff for file verification during the editing and the scoring process.

9.5 Quality Control in Editing and Data Input

All computer software used in editing, scoring, and merging is double-checked through a process called parallel processing, which compares the output from two different programs created by two different people. If the results of both programs are the same, the data are expected to be correct. Care is taken to derive the programs independently without sharing misassumptions or formulas, which may be in error. When the data from the two different programs are not identical, then both programmers examine their programs, the input, and the output to establish the source of the

difference. Once the error is detected, the programs are run in parallel again and the output checked one more time to verify other errors were not introduced into the process.

Extensive editing steps are used to check all questionable scanned records for multiple marks, poor erasures, and incomplete data. Multiple marks are recorded in scanning as an asterisk (*) in the data file, which can then be flagged for further editing either in data correction or during the editing phase of the data file. Poor erasures can be detected through the scanner application which records the total number of erasures (discriminations made by the scanner during the resolution of each bubble). These data may be analyzed further and the actual answer documents can be pulled for further verification. Generally, these types of analyses can be done to detect inconsistencies.

The scanner programs are designed to detect incorrect test forms, document pages out of order, incomplete data fields (if desired), foreign materials, excessive light marks which may indicate miscalibration, and other important checks which may affect the validity and integrity of the scanning. Operators are trained to respond to the error messages and to alert a manager if necessary.

Incomplete data are detected through the use of data rules. The data rules determine if the test is complete or, if incomplete, whether the student record should be invalidated. Additionally, the data rules check for valid ranges, generally in demographic fields such as birth date, student ID, and grade. Data rules are used to establish the merging procedure for the demographic data from the pre-ID file submitted by the district vs. the demographic data that may be scanned from the student document. If demographic data exists from both sources, the data rules establish which data to use.

Routines run in the editing phase also check for completeness of data files to prevent any data from being dropped, erased, or not included. Although scan logs and editing logs should prevent an undetected loss of data records, a complete listing of all student counts by school and LEA is done and checked against the counts from the school Scoring Services Identification (SSID) sheet submitted by the school and also against the original enrollment file (to check for reasonableness).

In order to safeguard against the mishandling of data files during the editing phase, all original scan files are archived and the editing staff work only with a copy of the file. Only the lead programming staff has access to the original data files. This step also ensures that in the event of an editing error, original data can be recovered rapidly. At every step, hard copies of the problem records (called error listings) are generated and maintained and only after correction, the changes are merged back into the work files.

Editing logs are maintained in which detailed information about each editing step is recorded. Results of the duplicate records check, the pre-code merge, the error listings, and error resolutions are entered in these logs. These editing logs track the movement of the scan files in the editing system. Complete and accurate edit checks on questionable answer documents are performed after scanning.

9.6 Quality Control in Scoring and Reporting

Scoring

To verify the accuracy of item scoring, a mock set of test materials with known data is created and scored for each form of the test. This mock set of materials is known as a test deck. The scoring

output from the test deck is checked using an *item analysis report* that records both the frequency of the scores by item distractor and the point-biserial correlations. These two statistics are analyzed to verify that the proper scoring keys are being used and that the scoring programs are properly assigned the correct response for each key. Results of these analyses are provided to Harcourt for a second analysis and for retaining as documentation of the process.

During the actual scoring process, the scoring keys are rechecked by running the item analysis report again on the first early sets of data for each form (approximately the first 500–1,000 records per form).

The *scoring output file* is formatted in such a way as to retain all information about the student responses, not just whether the student responded correctly or incorrectly, providing data with which additional analyses and checks can be done. The item information includes a code if the item is correct (the key retains the distractor information) and the actual distractor value for the student response if incorrect.

Reporting

When the system has determined that a school's anticipated documents have been edited and scanned, data for that order are run through the scoring program and the appropriate reports are produced. The printouts of a sufficient number of reports are examined to verify the validity and completeness of data. It is important to note that table data, scoring algorithms and reporting programs have already been verified as accurate in the quality control of software, that data have been verified as correct through the post-edit program, and that tracking enrollment counts have been updated to reflect actual student counts. Printed reports for each school are grouped together for assembly and packaging.

As each school's reports are assembled in pre-mailing, shipments are inspected to verify that they include all reports ordered. All possible problem situations have specific procedures to be followed for resolution. In addition to these control procedures in the pre-packaging phase, there are complete monitoring controls of the packaging process.

GLOSSARY OF TERMS

Achievement Levels (see [Performance Levels](#))

Accommodation—special testing conditions and methods allowed for certain students, primarily those with disabilities or with limited English proficiency.

Adequate Yearly Progress (AYP)—set of accountability measures for states, districts, and schools contained in the [No Child Left Behind Act of 2001](#) (NCLB) covering student achievement, based on each state's standards and assessments.

Alignment Study—analysis of the degree to which test items address the indicators and standards contained in the State Academic (Content) Standards.

Bias—Advantage or disadvantage conferred upon groups of students because of certain personal characteristics (such as gender, race, ethnicity, religion, socioeconomic status, disability, or geographic region), unrelated to mastery of the content.

Blueprints—recommendations and guidelines for the construction of the *Dakota STEP*, the development of items that specify the indicators and standards to be covered, and the number of items per standard or indicator for each. The number of items per indicator or standard must be sufficient to provide psychometrically reliable and valid measures of student achievement of them.

Calibration—the process of estimating the difficulty of each item on a test and the achievement levels of students who took the test. For the *Dakota STEP*, calibration is accomplished using the [Joint Maximum Likelihood \(JML\) Estimation](#) method.

Classical Test Theory (CTT)—a set of theories and methods based on the idea that an observed test score is the result of the test-takers true score and a quantifiable degree of error. Although the *Dakota STEP* is scored using Item Response Theory (IRT), CTT statistics are nevertheless calculated as a means of quality control.

Content Area (Content Domain)—the information or skills contained in an area of study. The content areas (or subject areas) assessed on the *Dakota STEP* are reading, mathematics, language, science, and social science.

Criterion-Referenced Test (CRT)—an assessment where an individual's performance is compared to a specific learning objective or performance standard and not to the performance of other students. Criterion-referenced tests assess how well students perform on specific goals or standards rather than how their performance compares to a norm group of students.

Cut Score (Cut point)—a score that marks the threshold between Achievement Levels on the *Dakota STEP (Below Basic, Basic, Proficient, Advanced)*. Cut Scores are established by the Department of Education, based on recommendations of a Standard-setting committee.

Differential Item Functioning (DIF)—used to identify gender and ethnic bias. Items with DIF exhibit differences in scores between groups that cannot be explained by differences between those groups in overall achievement. DIF is investigated using the Mantel-Haenszel method.

Domain (see [Content Area](#))

Equating (see [Linking](#))

Field Testing—the process of testing newly developed items before they are used as operational items to assess student performance.

Goal—a level of content specification used in South Dakota’s State Academic (Content) Standards, more specific than Domains but more general than Indicators.

Indicator—a level of content specification used in South Dakota’s State Academic (Content) Standards, more specific than Goals but more general than Standards.

Individual Education Plan (IEP)—describes special education services provided. Also specifies the testing accommodations a student needs for classroom instruction and assessments.

Item—any test question or task for which a score point is awarded; a stem or stimuli and responses for which a score or set of scores is to be recorded.

Item Response Theory (IRT)—A set of psychometric theories and methods based on the idea that a person’s true level of ability can be estimated by examining the characteristics of items on a test and the test-takers’ responses to them. IRT is widely used in large-scale testing because of the flexibility it provides in test construction and scoring.

Joint Maximum Likelihood Estimation (JML)—The method of item calibration used for the *Dakota STEP*, whereby the difficulty of each item and the achievement of each student are estimated simultaneously.

Linking (Equating)—the process of placing student test scores on a scale that allows comparisons of test from one year to scores from another year in which different test questions were used. For the *Dakota STEP*, the Stanford 10 items used as CRT items across test years are used to link test scores.

Mean NCE—the average of Normal Curved Equivalents of a group taking a given subtest or domain total.

Mean *p*-value—the average of the *p*-values for all items in a cluster, subtest, or domain total.

Mean Scaled Score—the average of Scaled Scores earned by a group taking a given subtest or domain total.

NCLB—the *No Child Left Behind Act of 2001*

National Percentile Rank Summary—the number and percent of students in a group falling into each quartile of the score distribution. May also include the top and bottom 10% of the distribution.

National PR-S of the Mean NCE—an indicator of the performance of the typical student in the group in terms of Percentile Rank. Since percentile ranks cannot be averaged, all of the percentile ranks in a group of scores are converted to NCEs; the NCEs are averaged, and the mean NCE is converted to a percentile rank.

No Child Left Behind Act of 2001 (NCLB)—the 2001 reauthorization of the *Elementary and Secondary Education Act* of 1965 (ESEA). NCLB requires each state to adopt challenging academic content and achievement standards for all public school students and to implement a set of high-quality assessments to measure **Adequate Yearly Progress** toward meeting these standards.

Normal Curved Equivalent (NCE)—a standard score derived from the Percentile Rank (PR) that ranges from 1 to 99, with a mean of 50 and standard deviation of 21.06.

Norm-Referenced Test (NRT)—a test designed to compare the performance of one group of students to a national sample of students, known as the norm group. The NRT portion of the *Dakota STEP* includes subtests from the Stanford 10 test published by Harcourt Assessment, Inc.

Operational Items—items that count toward a student’s score; “live” items. Compare to **field test** items.

***p*-value**—the percentage of a group of students answering a test question correctly.

Percentile Rank (PR)—a standard score derived from the scaled score that indicates the relative standing of a student in comparison to same-grade students in the norm-reference group. For example, a PR of 75 means that for a particular subtest, the student performed as well as or better than 75% of the students in the reference group.

Performance Levels (Achievement Levels, Proficiency Levels)—Levels of achievement on the *Dakota STEP* that correspond to the four levels of performance described in general terms in the State Academic (Content) Standards: Below Basic, Basic, Proficient, Advanced. Performance levels are bounded by Cut Scores on the *Dakota STEP* score scale.

Point-biserial correlation—measures the correlation between students' success on an item and their success on the test as a whole.

Proficiency Levels (see **Performance Levels**)

Rasch model—a one-parameter IRT model used in **calibrating** and **linking** *Dakota STEP* CRT scores.

Raw Score—the sum of the items each student answers correctly.

Reliability—desired characteristic of a test; achieved when measurement error is minimized.

Reporting Categories—the levels of content specification from the State Academic (Content) Standards—content *domain* (subject), *goal*, *indicator*, and *standard*—for which test results can be reported.

Scaled Score (SS)—a standard score derived from the **Raw Score** through a process of **calibrating**, **linking (equating)**, and **scaling**. Scaled scores allow comparisons of performance across different versions (years) of a test. *Dakota STEP* scores are placed on the Stanford 10 score scale.

Scaling—the process of placing scores resulting from **calibrating** and **linking** on the scale used for reporting scores, the Stanford 10 scale.

Scoring Service Identification Sheet (SSID or Header Sheet)—completed by Test Coordinators and/or Teachers/Examiners after testing is complete. SSIDs must accompany answer documents from each school that are sent to the Harcourt Scoring Center. The placement of this form determines whether score reports are generated by classroom or by grade within each school.

Section 504—special classification of students as defined in Section 504 of the Rehabilitation Act of 1973. Testing accommodations are permitted for students who meet the Section 504 criteria.

Standard—a statement of what students should know and be able to do. More specific than a Goal or Indicator.

Standard Deviation—a measure of the variability in a group of scores.

Standard Error of Measurement (SEM)— the standard deviation of the error score contained in the **Raw Score**, representing the uncertainty related to it.

Stanine (S)—a standard score derived from the Percentile Rank (PR) that ranges from 1 to 9, with a mean of 5 and a standard deviation of 2. Like Percentile Ranks, Stanines indicate a student's relative standing within a reference group. Stanines of 1, 2, and 3 indicate Below Average performance; 4, 5, and 6 are Average; and 7, 8, and 9 are Above Average.

Stanford 10—*Stanford Achievement Test Series, Tenth Edition*

TCH—Test Coordinator's Handbook

Validity—desired characteristic of a test; achieved when the test actually measures what it is intended to measure.

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APPENDIX A: Test Security Documents

Dakota STEP
TEST SECURITY AGREEMENT

For State Agency, District Personnel, and Test Coordinators

I acknowledge that the *Dakota STEP* is a secure test and agree to the following conditions of use to ensure test security:

1. a) I will take all necessary precautions to safeguard all test materials by limiting access to persons within the school district or agency with a responsible, professional interest in the test's security.
b) The names of all persons having access to the materials will be kept on file.
c) All persons having access to the materials (other than students to whom the test is administered) will sign a security affidavit, which will be kept on file in the school district office.
2. a) I will keep the test materials under lock and key, except on actual testing dates, limiting access to those responsible for their security.
b) Secure test materials, including test books and directions, will be delivered to examiners no sooner than the date of testing, unless logistics dictate an earlier delivery date.
c) Test materials will be kept secure until they are actually distributed to students.
d) In no case will students be permitted to remove test materials from the room where testing takes place.
3. I will not disclose or allow to be disclosed the contents of, or the scoring keys to, the test instrument.
4. Upon completion of testing, I will return all test materials to the designated Test Coordinator of the school district.
5. I will develop, distribute, and enforce disciplinary procedures for the violation of test security by district or agency staff.

By signing my name to this document, I am assuring Harcourt Assessment that I and anyone having access to the test materials will abide by the above conditions.

Signature: _____ District/Agency: _____

Printed Name: _____ Address: _____

Title: _____ Address: _____

Date: _____ City/State/Zip: _____

Send signed agreements to the South Dakota Department of Education, 700 Governors Drive, Pierre, SD 57501 and to JR Zengler c/o Harcourt Assessment, 19500 Bulverde Road, San Antonio, TX 78259. A copy of this agreement is to remain on file at the district office along with the *Dakota STEP Test Security Affidavits* for Teachers/Examiners.

Dakota STEP
TEST SECURITY AFFIDAVIT

For Teachers/Examiners

I acknowledge that I will have access to the *Dakota STEP* test materials for the purpose of administering the South Dakota State Test of Educational Progress. I understand that these materials are highly secure, and it is my professional responsibility to protect their security as follows:

1. I will not divulge the contents of the test, generally or specifically, to anyone.
2. I will not copy any part of the test or directions.
3. I will limit access to the test materials by examinees only to actual testing periods.

Signature: _____ District/Agency: _____

Printed Name: _____ School: _____

Position: _____ Address: _____

Date: _____ City/State/Zip: _____

Return this signed affidavit to your Test Coordinator.

South Dakota Department of Education

REPORT OF TEST IRREGULARITY

If it is determined that an irregularity in testing has occurred, the local district is to fax this form within 24 hours of the occurrence to the SD Department of Education 605-773-3782. The form may also be emailed to gary.skoglund@state.sd.us

District_____

School_____

Date_____

Test Coordinator_____ Phone_____

E-Mail_____

Description of Irregularity:

Action taken to correct:

What actions will be taken to avoid this type of incident again?

APPENDIX B: *Dakota STEP Test Blueprints*

The Reading Test Blueprints reflect the number of CRT items assessing each content standard in the 2005 revised *Dakota STEP Reading Comprehension* assessment.

GRADE 3 - Reading					
<i>Dakota STEP Content</i>		Number and Source of Standards-based Items			
Indicators	Standards	SAT 10 Items Aligned to Standards	South Dakota CRT Items	Total Dakota STEP CRT Items	CRT Items % - to-total by Indicator
1	1.1	6		6	38%
	1.2	6		6	
	1.3	1	5	6	
2	2.1	2	4	6	25%
	2.2		6	6	
3	3.1		6	6	12%
4	4.1	2	4	6	25%
	4.2		6	6	
Total CRT Items		17	31	48	100%

GRADE 4 - Reading					
<i>Dakota STEP Content</i>		Number and Source of Standards-based Items			
Indicators	Standards	SAT 10 Items Aligned to Standards	South Dakota CRT Items	Total Dakota STEP CRT Items	CRT Items % - to-total by Indicator
1	1.1		6	6	38%
	1.2	6		6	
	1.3	5	1	6	
2	2.1	1	5	6	25%
	2.2		6	6	
3	3.1		6	6	12%
4	4.1	2	4	6	25%
	4.2	1	5	6	
Total CRT Items		15	33	48	100%

GRADE 5 - Reading					
<i>Dakota STEP Content</i>		<i>Number and Source of Standards-based Items</i>			
Indicators	Standards	SAT 10 Items Aligned to Standards	South Dakota CRT Items	Total <i>Dakota STEP</i> CRT Items	CRT Items %- to-total by Indicator
1	1.1		7	7	38%
	1.2	7		7	
	1.3		7	7	
2	2.1	7		7	25%
	2.2	2	5	7	
3	3.1		7	7	12%
4	4.1	3	4	7	25%
	4.2		7	7	
Total CRT Items		19	37	56	100%

GRADE 6 - Reading					
<i>Dakota STEP Content</i>		<i>Number and Source of Standards-based Items</i>			
Indicators	Standards	SAT 10 Items Aligned to Standards	South Dakota CRT Items	Total <i>Dakota STEP</i> CRT Items	CRT Items %- to-total by Indicator
1	1.1	1	6	7	25%
	1.2	7		7	
2	2.1		7	7	25%
	2.2	2	5	7	
3	3.1		7	7	12%
4	4.1		7	7	38%
	4.2		7	7	
	4.3	3	4	7	
Total CRT Items		13	43	56	100%

GRADE 7 - Reading					
<i>Dakota STEP Content</i>		Number and Source of Standards-based Items			
Indicators	Standards	SAT 10 Items Aligned to Standards	South Dakota CRT Items	Total <i>Dakota STEP</i> CRT Items	CRT Items %- to-total by Indicator
1	1.1	4	3	7	25%
	1.2	7		7	
2	2.1	2	5	7	25%
	2.2	3	4	7	
3	3.1	1	6	7	12%
4	4.1	5	2	7	38%
	4.2		7	7	
	4.3		7	7	
Total CRT Items		22	34	56	100%

GRADE 8 - Reading					
<i>Dakota STEP Content</i>		Number and Source of Standards-based Items			
Indicators	Standards	SAT 10 Items Aligned to Standards	South Dakota CRT Items	Total <i>Dakota STEP</i> CRT Items	CRT Items %- to-total by Indicator
1	1.1		7	7	29%
	1.2	7		7	
2	2.1	2	5	7	29%
	2.2	5	2	7	
3	3.1		7	7	13%
4	4.1	7		7	29%
	4.3		7	7	
Total CRT Items		21	28	49	100%

GRADE 11 - Reading					
<i>Dakota STEP Content</i>		Number and Source of Standards-based Items			
Indicators	Standards	SAT 10 Items Aligned to Standards	South Dakota CRT Items	Total <i>Dakota STEP</i> CRT Items	CRT Items % - to-total by Indicator
1	1.1	7	1	8	20%
2	2.1	5	3	8	40%
	2.2		8	8	
3	3.1		8	8	20%
4	4.1	6	2	8	20%
Total CRT Items		17	28	40	100%

The Mathematics Test Blueprints reflect the number of CRT items assessing each goal and content indicator in the 2005 *Dakota STEP Mathematics Problem Solving* assessment.

Grade 3 Mathematics					
Dakota STEP Content		Number and Source of Standards-based Items			
Goals	Ind.	SAT 10 Items Aligned to Standards	South Dakota CRT Items	Total Dakota STEP CRT Items	CRT Items % -to-total by Goal
Algebra	1	1	6	7	20%
	2	1	6	7	
	3		7	7	
Geometry	1	1	6	7	13%
	2	1	6	7	
Measurement	1	2	5	7	13%
	2	3	4	7	
Number Sense	1	2	5	7	28%
	2	3	4	7	
	3	3	4	7	
	4	1	6	7	
Patterns, Relations, and Functions	1		7	7	13%
	2	2	5	7	
Statistics and Probability	1	3	4	7	13%
	2	1	6	7	
Total CRT Items		24	81	105	100%

Grade 4 Mathematics					
<i>Dakota STEP Content</i>		Number and Source of Standards-based Items			
Goals	Ind.	SAT 10 Items Aligned to Standards	South Dakota CRT Items	Total Dakota STEP CRT Items	CRT Items %-to-total by Goal
Algebra	1	1	6	7	20%
	2	2	5	7	
	3		7	7	
Geometry	1	1	6	7	13%
	2	1	6	7	
Measurement	1	2	5	7	13%
	2		7	7	
Number Sense	1		7	7	28%
	2	2	4	6	
	3	4	4	8	
	4	3	4	7	
Patterns, Relations, and Functions	1	1	6	7	13%
	2	2	5	7	
Statistics and Probability	1	4	3	7	13%
	2	2	5	7	
Total CRT Items		25	80	105	100%

Grade 5 Mathematics					
<i>Dakota STEP Content</i>		<i>Number and Source of Standards-based Items</i>			
Goals	Ind.	SAT 10 Items Aligned to Standards	South Dakota CRT Items	Total Dakota STEP CRT Items	CRT Items %-to-total by Goal
Algebra	1	1	6	7	18%
	2	1	5	6	
	3	1	4	5	
Geometry	1	1	6	7	13%
	2	2	5	7	
Measurement	1	2	7	9	13%
	2	2	3	5	
Number Sense	1	3	5	8	30%
	2	2	7	9	
	3	2	5	7	
	4	2	5	7	
Patterns, Relations, and Functions	1		7	7	13%
	2	2	5	7	
Statistics and Probability	1	3	4	7	13%
	2	1	6	7	
Total CRT Items		25	80	105	100%

Grade 6 Mathematics					
<i>Dakota STEP Content</i>		<i>Number and Source of Standards-based Items</i>			
Goals	Ind.	SAT 10 Items Aligned to Standards	South Dakota CRT Items	Total Dakota STEP CRT Items	CRT Items %-to-total by Goal
Algebra	1	3	4	7	20%
	2		7	7	
	3	1	6	7	
Geometry	1	1	6	7	13%
	2	2	5	7	
Measurement	1	1	6	7	13%
	2	3	4	7	
Number Sense	1	4	3	7	28%
	2	3	4	7	
	3	3	4	7	
	4	1	6	7	
Patterns, Relations, and Functions	1	1	6	7	13%
	2	1	6	7	
Statistics and Probability	1	2	5	7	13%
	2	2	5	7	
Total CRT Items		28	77	105	100%

Grade 7 Mathematics					
<i>Dakota STEP Content</i>		<i>Number and Source of Standards-based Items</i>			
Goals	Ind.	SAT 10 Items Aligned to Standards	South Dakota CRT Items	Total Dakota STEP CRT Items	CRT Items %-to-total by Goal
Algebra	1	1	6	7	20%
	2	2	5	7	
	3		7	7	
Geometry	1	2	5	7	13%
	2	1	6	7	
Measurement	1	2	5	7	13%
	2	3	4	7	
Number Sense	1	4	3	7	28%
	2	2	5	7	
	3	3	4	7	
	4	1	6	7	
Patterns, Relations, and Functions	1	2	5	7	13%
	2	2	5	7	
Statistics and Probability	1	3	4	7	13%
	2	2	5	7	
Total CRT Items		30	75	105	100%

Grade 8 Mathematics					
<i>Dakota STEP Content</i>		<i>Number and Source of Standards-based Items</i>			
Goals	Ind.	SAT 10 Items Aligned to Standards	South Dakota CRT Items	Total Dakota STEP CRT Items	CRT Items %-to-total by Goal
Algebra	1	2	5	7	20%
	2	1	6	7	
	3	2	5	7	
Geometry	1	2	5	7	13%
	2	1	6	7	
Measurement	1	2	5	7	13%
	2	2	5	7	
Number Sense	1		7	7	28%
	2	5	2	7	
	3	4	3	7	
	4	2	5	7	
Patterns, Relations, and Functions	1	1	6	7	13%
	2	1	6	7	
Statistics and Probability	1	3	4	7	13%
	2	2	5	7	
Total CRT Items		30	75	105	100%

Grade 11 Mathematics					
<i>Dakota STEP Content</i>		<i>Number and Source of Standards-based Items</i>			
Goals	Ind.	SAT 10 Items Aligned to Standards	South Dakota CRT Items	Total Dakota STEP CRT Items	CRT Items %-to-total by Goal
Algebra	1	3	4	7	20%
	2	5	2	7	
	3	5	2	7	
Geometry	1	5	2	7	13%
	2	4	3	7	
Measurement	1	2	5	7	13%
	2	1	6	7	
Number Sense	1	3	4	7	28%
	2	1	6	7	
	3	2	5	7	
	4	4	3	7	
Patterns, Relations, and Functions	1	1	6	7	13%
	2	4	3	7	
Statistics and Probability	1	5	2	7	13%
	2	3	4	7	
Total CRT Items		48	57	105	100%

APPENDIX C: Sample Score Reports

CRT Student Report

**South Dakota
Dakota STEP Results
2004-2005**

Grade: 11	Birthdate:	Test Date:
-----------	------------	------------

	Scaled Score	Achievement Level
Math	774.0	4—Advanced
Reading	729.0	3—Proficient

Students in grades 3 through 8 and grade 11 completed the Dakota STEP test in the spring of 2005. The test is designed to measure the progress of students on the South Dakota Content Standards in Reading and Math. This report summarizes the results of that assessment. Please contact your local school if you have questions about this information.

Achievement Level Definitions

Reading	Math
Advanced: 780.0 or above	Advanced: 759.0 or above
Proficient: 719 to 779.0	Proficient: 703 to 758.0
Basic: 625 to 718.0	Basic: 578 to 702.0
Below Basic: 624.0 or below	Below Basic: 577.0 or below

Grade 11 - Reading Proficient

Eleventh grade students performing at the proficient level can use reading strategies to comprehend literary and informational text; analyze the literary devices within text and the relationships among elements of literature; analyze the influence of historical context on the form, style, and point of view of a written work. They can analyze the effect of bias, stereotyping, unsupported inferences, fallacious reasoning, and propaganda techniques.

Grade 11 - Math Advanced

Core high school students performing at the advanced level will simplify polynomial expressions using the distributive property, solve for real roots of quadratic equations, and interpret solutions of systems of equations. They will write and solve algebraic statements that represent problem situations. Students will derive formulas to solve problems involving common geometric figures, use congruence and similarity of triangles to solve practical proportion problems, and use transformations to map images of objects. They will develop appropriate units and derive formulas and strategies for solving problems involving units of measurement and justify the use of properties, axioms, and computational strategies to evaluate algebraic expressions. They will interpret graphs of linear functions and predict the effects on the graph of a function for changes of coefficients and/or constants in the function, and use arithmetic and geometric patterns to make predictions. Students will also employ statistical techniques to design a plan for collection and analyzing data

NRT Group Reports

PAGE 1										
GRADE: 04 TEST DATE: 03/04										
with Otis-Lennon School Ability Test®, Eighth Edition										
Administrator's Data Summary JEFFERSON SD TD										
Total Number Tested 68	Reading			Mathematics			Language			Battery Totals
Number Possible	70	20	30	50	30	20	30	8	11	210
Number Tested	19	42	41	20	42	43	42	42	43	25
Number Correct										
Statistics										
Mean	21.1	5.3	4.1	8.5	8.5	4.6	3.8	5.1	1.8	5.2
Standard Deviation	15.7	4.0	3.8	7.3	9.6	5.9	3.9	5.8	2.3	5.9
Percentiles										
P90	37.3	9.3	8.0	16.5	13.5	9.4	8.6	9.7	3.5	9.4
Q3	21.8	6.4	5.4	9.5	10.8	5.1	4.4	5.7	2.3	4.4
Median	16.7	4.2	3.2	6.8	5.0	2.5	2.8	3.3	1.3	3.5
Q1	12.3	2.7	1.9	3.0	3.7	1.6	1.7	2.0	0.7	1.5
P10	7.7	1.8	0.5	1.2	2.2	0.6	0.7	0.7	0.1	0.2
Sealed Score										
Statistics										
Mean	562.7	542.4	535.0	564.5	525.6	518.6	531.3	532.3	543.7	538.2
Standard Deviation	65.4	50.3	43.9	62.6	54.5	56.8	44.9	49.4	40.3	41.8
Percentiles										
P90	605.2	585.7	572.1	616.5	556.3	566.5	578.3	571.3	571.6	589.1
Q3	566.3	556.3	549.3	574.5	544.8	531.8	540.1	544.0	545.3	554.5
Median	550.2	527.2	522.2	554.5	508.0	494.4	515.8	517.3	517.4	524.3
Q1	533.5	495.1	511.0	494.2	470.2	489.6	492.0	518.9	517.9	523.9
P10	507.2	475.2	484.1	484.5	468.8	467.9	485.0	479.0	517.6	523.7
STANFORD LEVEL FORM: INTERMEDIATE 1/D 2002 NORMS: Spring National										
OLSAT LEVEL FORM: MIXED 5 2002 NORMS: Spring National										
Abbreviated										
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COPY 01 PROCESS NO. 104020277-1411530-GSDK-00001-1										

Administrator's Data Summary | JEFFERSON SD TD

Abbreviated

with Otis-Lennon School Ability Test®,
Eighth Edition

GRADE: 04
TEST DATE: 03/04/04

PAGE 2

		Mathematics										Language										Battery Totals			
		Reading					Mathematics					Composition					Speaking					Partial Battery			
Total Number Tested	Number Possible	20	20	30	50	30	20	42	43	3-1	4-2	3-1	4-2	42	42	11	11	30	30	43	43	150	210		
Number Tested	19	42	41	20	42	43	43	42	42	2	2	2	2	42	42	11	11	43	43	25	25				
National Individual PR-S of Mean NCE	6-2	3-1	4-2	8-2	3-1	3-1	4-2	3-1	4-2	1	0	0	0	0	0	1	1	1	1	1	1	7-2	6-2		
Natl.1 PR Summary	Number 76 - 99 51 - 75 26 - 50 1 - 25	1 1 0 17	2 0 1 39	0 1 2 39	1 1 2 16	1 1 2 38	1 1 2 39	0 2 2 39	0 2 2 39	2	0	0	0	0	0	1	1	0	0	1	1	22	22		
Percent 76 - 99 51 - 75 26 - 50 1 - 25	5 5 0 89	5 5 0 93	5 5 0 95	2 2 0 80	2 2 0 90	2 2 0 91	2 2 0 91	5 5 5 90	5 5 5 90	0 0 5 93	0 0 5 93	0 0 5 93	0 0 5 93	0 0 5 93	0 0 5 93	2	2	2	2	4	4	4	4		
Percent At/Above the National 90th PR	11	7	2	10	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	8	8		
National Stanine Summary	(Above Avg) 7-8,9 N (Average) 4-5,6 N (Below Avg) 1,2,3 N	1 2 16	1 2 39	1 2 16	1 3 38	1 3 38	1 3 38	1 4 39	1 4 39	2	1	2	1	2	1	2	3	3	38	38	40	40	22	22	
(Above Avg) 7-8,9 % (Average) 4-5,6 % (Below Avg) 1,2,3 %	5 11 84	5 5 93	2 5 80	2 5 90	2 5 91	2 5 91	2 5 91	5 9 93	5 9 93	5	5	5	5	5	5	2	2	2	2	90	90	93	93	88	88
National NCE Statistics	Mean Standard Deviation Percentiles	17.9 23.3	10.7 18.7	12.6 16.1	20.8 24.0	9.5 19.0	9.3 19.3	13.1 17.6	13.1 17.6	9.5 18.9	12.5 18.7	10.3 19.9	13.1 19.9	12.6 17.7	8.1 19.0	12.6 19.0	18.2 19.7	18.1 19.0	12.6 19.0	18.1 19.0	18.2 19.7	20.0			
P80 Q3 Median Q1 P10	-80th -75th -50th -25th -10th	37.9 16.7 9.9 5.8 1.0	27.4 11.1 1.0 1.0 1.0	26.5 16.1 7.3 1.0 1.0	42.8 12.5 13.3 1.0 1.0	18.1 12.5 1.0 1.0 1.0	23.1 7.1 1.0 1.0 1.0	32.7 9.3 6.2 1.0 1.0	22.0 14.3 1.0 1.0 1.0	25.5 17.1 1.0 1.0 1.0	33.7 7.3 1.0 1.0 1.0	32.5 7.9 1.0 1.0 1.0	16.1 18.9 1.0 1.0 1.0	16.1 18.9 1.0 1.0 1.0	17.7 7.9 1.0 1.0 1.0	19.7 20.4 14.4 16.4 4.3	31.7 20.4 14.4 16.4 4.3								
STANFORD LEVEL/FORM: INTERMEDIATE 1/D 2002 NORMS: Spring National																									
OLSAT LEVEL/FORM: MIXED 5 2002 NORMS: Spring National																									

COPY/01
PROCESS NO. 10400277-141530-GSDK-00002-1

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Master List Summary | JEFFERSON SD TD

with Otis-Lennon School Ability Test®,
Eighth Edition

GRADE: 04
TEST DATE: 03/04

Abbreviated

6Master List Summary JEFFERSON SD TDI||04||

COPY 01
PROCESS NO. 10400277-1411530-GSDK-00009-1

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Group Report | JEFFERSON SD TD

with Otis-Lennon School Ability Test®,
Eighth Edition

Abbreviated

National Comparison

GRADE: 04
TEST DATE: 03/04

About This Group's Performance:

This group recently took the *Stanford Achievement Test*, Tenth Edition (Stanford 10). This test is one measure of their achievement. This report describes the performance of the typical student in this group compared to students in the same grade across the nation. The Battery scores provide an overall indication of this group's performance. The typical student in this group scored in the lower range for the grade, which means that group performance was Below Average. The chart below shows this group's performance in each subject area tested.

Subtests and Totals	Number Tested	Mean Number Correct	Mean Scaled Score	National Individual PR+S	Mean National NCE	Percent in Each AAC Range L M H	National Grade Percentile Ranks						
							1	10	30	50	70	90	99
Total Reading	19	21.1	563	6.-2	17.9	86 0 14							
Word Study Skills	42	5.3	542	3.-1	10.7	63 25 13							
Reading Comprehension	41	4.1	535	4.-2	12.6	75 25 0							
Total Mathematics	20	8.5	565	8.-2	20.8	57 29 14							
Mathematics Problem Solving	42	8.5	526	3.-1	9.5	63 25 13							
Mathematics Procedures	43	4.6	519	3.-1	9.3	50 38 13							
Language	43	3.8	531	4.-2	13.1	63 25 13							
Prewriting	42	5.1	532	3.-1	9.5	63 25 13							
Composing	42	1.8	544	4.-2	12.5	38 25 38							
Editing	42	1.6	533	3.-1	10.3	50 25 25							
Science	42	1.8	518	4.-2	13.1	63 25 13							
Social Science	43	5.3	529	2.-1	8.1	76 13 13							
Partial Battery	25	5.2	528	4.-2	12.6	63 25 13							
Total Battery	25	41.0	NA	7.-2	18.2	50 38 13							
		56.8	NA	6.-2	18.1	63 25 13							
<hr/>													
Otis-Lennon School Ability Test®	Number Tested	Mean Number Correct	Mean SAL	Age PR+S	Age NCE	Mean Scored Scale	National Grade Percentile Ranks						
Total	111	NA	53	1.-1	1.0	586	1	10	30	50	70	90	99
Verbal	111	NA	61	1.-1	1.0	586							
Nonverbal	111	NA	58	1.-1	1.0	580							

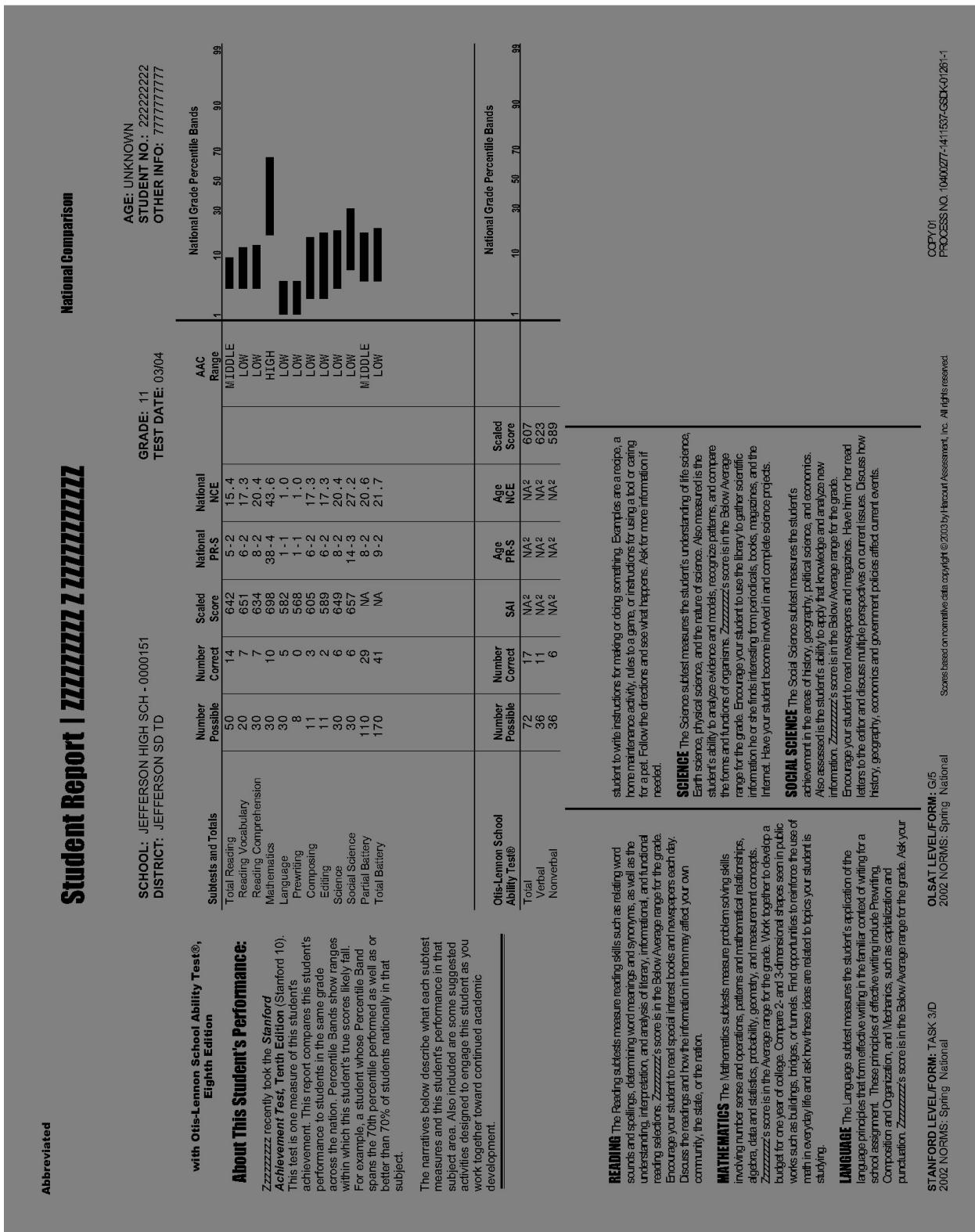
STANFORD LEVEL FORM: INTERMEDIATE 1/D
2002 NORMS: Spring National

OLSAT LEVEL FORM: MIXED 5
2002 NORMS: Spring National

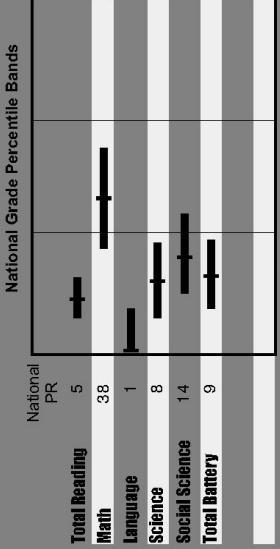
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NRT Student Report



NRT Home Report

National Comparison															
<p>SCHOOL: JEFFERSON HIGH SCH- 0000151 DISTRICT: JEFFERSON SD/TD GRADE: 11 TEST DATE: 03/04 STUDENT NO.: 222222222222 AGE: Unknown OTHER INFO: 777777777777</p> <p>Learning Snapshot</p> <ul style="list-style-type: none"> You have a solid foundation in Math. Keep working on expanding your skills in these areas. You need support to improve your Language, Total Reading and Science skills. Talk to your parents and teachers about ways to build your knowledge and skills in these areas. <p>About This Student's Performance Report:</p> <p>Zzzzzzzzzz recently took the Stanford Achievement Test, Tenth Edition (Stanford 10). The graph on the right presents National Grade Percentile Bands, which show your student's performance compared to students in the same grade in a national reference group. Percentile Bands show ranges within which your student's true scores likely fall. For example, a student whose Percentile Band spans the 70th percentile performed as well as or better than 70% of students nationally in that subject. The boxes below describe what each subject measures and your student's performance in that subject area. Also included are some suggested activities designed to engage you and your student as you work together toward continued academic development. This test is only one means for assessing your student's achievement. The school should be contacted for more information about your student's overall performance.</p>	 <p>The chart displays National Grade Percentile Bands for Total Reading, Math, Language, Science, Social Science, and Total Battery. The Y-axis represents National PR (Percentile Rank) from 1 to 99. The X-axis shows the range from Below Average to Above Average. Each subject has a vertical box indicating the range of scores for that subject, with a horizontal line inside representing the student's score.</p> <table border="1"> <thead> <tr> <th>Subject</th> <th>Approximate Range (PR)</th> </tr> </thead> <tbody> <tr> <td>Total Reading</td> <td>5 - 38</td> </tr> <tr> <td>Math</td> <td>1 - 9</td> </tr> <tr> <td>Language</td> <td>1 - 8</td> </tr> <tr> <td>Science</td> <td>8 - 14</td> </tr> <tr> <td>Social Science</td> <td>14 - 20</td> </tr> <tr> <td>Total Battery</td> <td>9 - 14</td> </tr> </tbody> </table>	Subject	Approximate Range (PR)	Total Reading	5 - 38	Math	1 - 9	Language	1 - 8	Science	8 - 14	Social Science	14 - 20	Total Battery	9 - 14
Subject	Approximate Range (PR)														
Total Reading	5 - 38														
Math	1 - 9														
Language	1 - 8														
Science	8 - 14														
Social Science	14 - 20														
Total Battery	9 - 14														
<p>MATHEMATICS</p> <p>The Mathematics subtests measure problem solving skills involving number sense and operations, pattern and model related relationships, algebra, and statistics, probability, geometry, and measurement concepts. Zzzzzzzz's score is in the Average range for the grade. Work together to develop a budget for one year of college. Compare 2- and 3-dimensional shapes seen in public works such as buildings, bridges, or tunnels. Find opportunities to reinforce the use of math in everyday life and ask how these ideas are related to topics your student is studying.</p>	<p>LANGUAGE</p> <p>The Language subtest measures the student's application of the language principles that form the basis of writing in the familiar context of writing for a school assignment. These principles of effective writing include Prewriting, Composition and Organization, and Word usage, such as capitalization and punctuation. Zzzzzzzz's score is in the Below Average range for the grade. Ask your student to write institutions for cooking or doing something. Examples are a recipe, a home maintenance activity, rules to a game, or instructions for using a tool or caring for a pet. Follow the directions and see what happens. Ask for more information if needed.</p>														
<p>SCIENCE</p> <p>The Science subtest measures the student's understanding of life science, Earth science, physical science, and the nature of science. Also measured is the student's ability to analyze evidence and models, recognize patterns, and compare the forms and functions of organisms. Zzzzzzzz's score is in the Below Average range for the grade. Encourage your student to use the library to gather scientific information. If he or she finds interesting items in periodicals, books, magazines, and the Internet, have your student become involved in and complete science projects.</p>	<p>SOCIAL SCIENCE</p> <p>The Social Science subtest measures the student's achievement in the areas of history, geography, political science, and economics. Also assessed is the student's ability to apply past knowledge and analyze new information. Zzzzzzzz's score is in the Below Average range for the grade. Encourage your student to read newspapers and magazines. Have him or her read letters to the editor and discuss multiple perspectives on current issues. Discuss how history, geography, economics and government policies affect current events.</p>														
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APPENDIX D: Item Analyses

Note that “Item No.” represents item sequence number in the test booklet.

STEP Reading			STEP Mathematics		
Grade 3			Grade 3		
Item No.	P-value	Point Bis	Item No.	P-value	Point Bis
2	0.93	0.17	1	0.58	0.42
3	0.95	0.25	3	0.87	0.31
4	0.87	0.29	5	0.58	0.33
5	0.88	0.36	6	0.89	0.42
6	0.66	0.42	8	0.79	0.44
7	0.47	0.36	10	0.67	0.35
4	0.94	0.36	11	0.79	0.38
6	0.61	0.37	12	0.82	0.51
7	0.74	0.48	14	0.75	0.35
9	0.88	0.29	15	0.83	0.28
11	0.64	0.32	16	0.51	0.4
12	0.44	0.4	18	0.87	0.43
13	0.81	0.5	19	0.72	0.47
16	0.71	0.48	20	0.78	0.53
20	0.87	0.47	21	0.82	0.49
22	0.59	0.41	22	0.79	0.47
25	0.76	0.42	23	0.76	0.5
31	0.67	0.43	24	0.74	0.36
32	0.9	0.43	25	0.76	0.33
33	0.84	0.45	26	0.82	0.22
34	0.73	0.35	27	0.75	0.41
35	0.58	0.34	28	0.74	0.21
36	0.68	0.15	29	0.91	0.35
37	0.83	0.35	30	0.83	0.41
38	0.87	0.39	31	0.92	0.35
39	0.58	0.28	32	0.67	0.41
40	0.52	0.39	33	0.85	0.33
41	0.41	0.26	34	0.61	0.46
42	0.44	0.22	35	0.75	0.45
43	0.55	0.34	36	0.45	0.21
44	0.77	0.43	37	0.68	0.3
45	0.57	0.39	38	0.61	0.47
46	0.59	0.2	39	0.7	0.53
47	0.58	0.39	40	0.6	0.47
48	0.5	0.32	41	0.57	0.34
49	0.48	0.31	42	0.56	0.47
50	0.78	0.41	43	0.75	0.55
51	0.54	0.33	44	0.48	0.49
52	0.76	0.37	45	0.66	0.5
53	0.77	0.47	46	0.69	0.43
54	0.68	0.5	47	0.9	0.35
55	0.65	0.4	48	0.75	0.4
56	0.7	0.4	49	0.51	0.39
57	0.51	0.29	50	0.62	0.49
58	0.77	0.36	51	0.66	0.54
59	0.36	0.23	52	0.4	0.44
60	0.64	0.44	53	0.27	0.11

STEP Reading			STEP Mathematics		
Grade 3			Grade 3		
Item No.	P-value	Point Bis	Item No.	P-value	Point Bis
61	0.7	0.42	54	0.67	0.57
			55	0.71	0.51
			56	0.72	0.56
			57	0.83	0.49
			58	0.83	0.51
			59	0.87	0.46
			60	0.66	0.56
			61	0.75	0.42
			62	0.69	0.49
			63	0.74	0.54
			64	0.7	0.4
			65	0.69	0.52
			66	0.58	0.45
			67	0.58	0.28
			68	0.63	0.29
			69	0.52	0.38
			70	0.44	0.44
			71	0.64	0.41
			72	0.81	0.43
			73	0.35	0.22
			74	0.72	0.46
			75	0.78	0.33
			76	0.66	0.44
			77	0.45	0.38
			78	0.44	0.2
			79	0.79	0.37
			80	0.55	0.44
			81	0.65	0.5
			82	0.67	0.38
			83	0.55	0.46
			84	0.97	0.25
			85	0.71	0.38
			86	0.77	0.46
			87	0.94	0.28
			88	0.85	0.46
			89	0.65	0.42
			90	0.76	0.44
			91	0.94	0.3
			92	0.66	0.28
			93	0.5	0.24
			94	0.78	0.22
			95	0.85	0.39
			96	0.88	0.34
			97	0.37	0.14
			98	0.78	0.31
			99	0.77	0.21
			100	0.93	0.35
			101	0.45	0.32

STEP Reading			STEP Mathematics		
Grade 3			Grade 3		
Item No.	P-value	Point Bis	Item No.	P-value	Point Bis
			102	0.68	0.28
			103	0.79	0.24
			104	0.76	0.39
			105	0.45	0.27
			106	0.54	0.36
			107	0.63	0.53
			108	0.57	0.23
			109	0.85	0.48
			110	0.65	0.33
			111	0.26	0.27

STEP Reading			STEP Mathematics		
Grade 4			Grade 4		
Item No.	P-value	Point Bis	Item No.	P-value	Point Bis
3	0.95	0.27	2	0.68	0.32
4	0.92	0.28	3	0.2	0.24
5	0.79	0.39	5	0.91	0.34
9	0.92	0.27	6	0.54	0.44
10	0.83	0.4	7	0.85	0.39
11	0.83	0.27	8	0.8	0.45
1	0.91	0.26	9	0.97	0.24
2	0.83	0.41	10	0.78	0.51
3	0.67	0.22	12	0.26	0.23
4	0.64	0.38	13	0.57	0.36
5	0.6	0.18	14	0.59	0.46
6	0.79	0.44	15	0.83	0.18
7	0.72	0.38	16	0.79	0.44
9	0.8	0.44	17	0.65	0.37
10	0.41	0.25	18	0.87	0.45
11	0.62	0.4	19	0.62	0.41
12	0.58	0.42	20	0.49	0.41
13	0.46	0.31	21	0.74	0.42
14	0.61	0.48	22	0.82	0.34
15	0.75	0.23	23	0.76	0.41
16	0.67	0.38	24	0.41	0.16
17	0.84	0.37	25	0.58	0.45
18	0.93	0.38	28	0.33	0.37
20	0.75	0.31	29	0.76	0.44
21	0.55	0.33	30	0.89	0.29
23	0.69	0.47	31	0.34	0.39
24	0.94	0.29	32	0.54	0.58
25	0.63	0.33	33	0.61	0.39
28	0.93	0.4	34	0.87	0.32
29	0.75	0.38	35	0.54	0.36
30	0.32	0.18	36	0.62	0.48
32	0.66	0.41	37	0.55	0.38
36	0.69	0.47	38	0.62	0.37
37	0.82	0.52	39	0.43	0.29
38	0.51	0.41	40	0.44	0.39
39	0.76	0.43	41	0.89	0.3
40	0.72	0.5	42	0.78	0.44
41	0.5	0.32	43	0.85	0.37
42	0.46	0.29	44	0.8	0.48
48	0.69	0.34	45	0.63	0.47
49	0.82	0.54	46	0.71	0.46
50	0.54	0.21	47	0.79	0.41
51	0.91	0.43	48	0.5	0.57
56	0.72	0.44	49	0.62	0.51
57	0.46	0.23	50	0.88	0.46
58	0.55	0.31	51	0.48	0.25
59	0.65	0.36	52	0.66	0.47

STEP Reading			STEP Mathematics		
Grade 4			Grade 4		
Item No.	P-value	Point Bis	Item No.	P-value	Point Bis
60	0.63	0.38	53	0.67	0.46
61	0.55	0.33	54	0.59	0.24
62	0.78	0.34	55	0.67	0.49
63	0.73	0.47	56	0.64	0.51
			57	0.59	0.44
			58	0.62	0.53
			59	0.87	0.36
			60	0.93	0.26
			61	0.54	0.45
			62	0.49	0.28
			63	0.22	0.07
			64	0.33	0.27
			65	0.35	0.29
			66	0.59	0.36
			67	0.73	0.42
			68	0.72	0.45
			69	0.48	0.33
			70	0.53	0.32
			71	0.7	0.5
			72	0.6	0.47
			73	0.4	0.32
			74	0.72	0.48
			75	0.59	0.5
			76	0.79	0.47
			77	0.84	0.37
			78	0.81	0.38
			79	0.75	0.38
			80	0.37	0.27
			81	0.34	0.44
			82	0.71	0.42
			83	0.77	0.5
			84	0.84	0.4
			85	0.79	0.36
			86	0.83	0.4
			87	0.66	0.39
			88	0.6	0.34
			89	0.51	0.39
			90	0.27	0.11
			91	0.72	0.36
			92	0.78	0.38
			93	0.81	0.28
			94	0.81	0.34
			95	0.34	0.14
			96	0.43	0.34
			97	0.63	0.42
			98	0.71	0.29
			99	0.85	0.4
			100	0.55	0.28

STEP Reading			STEP Mathematics		
Grade 4			Grade 4		
Item No.	P-value	Point Bis	Item No.	P-value	Point Bis
			101	0.59	0.31
			102	0.78	0.3
			103	0.61	0.49
			104	0.46	0.32
			105	0.66	0.37
			106	0.53	0.29
			107	0.59	0.29
			108	0.66	0.3
			109	0.37	0.36
			110	0.57	0.21

STEP Reading			STEP Mathematics		
Grade 5			Grade 5		
Item No.	P-value	Point Bis	Item No.	P-value	Point Bis
2	0.91	0.38	3	0.65	0.32
3	0.62	0.34	4	0.25	0.15
4	0.78	0.38	5	0.72	0.33
5	0.86	0.41	6	0.71	0.43
6	0.73	0.45	7	0.55	0.54
7	0.63	0.46	8	0.79	0.42
8	0.65	0.33	9	0.89	0.32
9	0.81	0.36	10	0.65	0.51
10	0.75	0.34	11	0.64	0.43
11	0.71	0.25	12	0.51	0.4
13	0.58	0.25	13	0.62	0.45
14	0.68	0.11	14	0.57	0.37
15	0.84	0.41	15	0.86	0.43
16	0.36	0.21	17	0.69	0.49
17	0.64	0.33	18	0.8	0.41
18	0.85	0.44	19	0.95	0.26
19	0.71	0.44	20	0.66	0.52
20	0.28	0.11	21	0.8	0.37
21	0.71	0.3	23	0.69	0.41
22	0.68	0.44	24	0.63	0.28
23	0.62	0.35	25	0.75	0.35
24	0.61	0.15	26	0.67	0.28
25	0.42	0.26	27	0.66	0.48
26	0.38	0.3	28	0.41	0.35
27	0.66	0.4	30	0.78	0.46
29	0.23	0.21	31	0.69	0.36
30	0.82	0.1	32	0.62	0.21
31	0.46	0.37	33	0.62	0.45
32	0.7	0.34	34	0.57	0.41
33	0.39	0.32	35	0.51	0.26
34	0.5	0.36	36	0.79	0.3
35	0.61	0.37	37	0.3	0.27
36	0.57	0.36	38	0.36	0.39
37	0.91	0.26	39	0.85	0.35
41	0.61	0.45	40	0.56	0.28
42	0.8	0.43	41	0.48	0.37
43	0.65	0.31	42	0.76	0.45
44	0.8	0.42	43	0.77	0.5
45	0.8	0.44	44	0.76	0.32
46	0.65	0.27	45	0.71	0.55
47	0.81	0.5	46	0.19	0.02
48	0.53	0.39	47	0.66	0.45
49	0.4	0.32	48	0.42	0.21
50	0.73	0.45	49	0.43	0.31
51	0.7	0.38	50	0.85	0.53
52	0.49	0.22	51	0.58	0.5
53	0.75	0.43	52	0.73	0.41

STEP Reading			STEP Mathematics		
Grade 5			Grade 5		
Item No.	P-value	Point Bis	Item No.	P-value	Point Bis
55	0.8	0.43	53	0.83	0.46
56	0.68	0.48	54	0.79	0.44
58	0.52	0.32	55	0.67	0.48
59	0.61	0.4	56	0.69	0.47
60	0.6	0.29	57	0.53	0.38
63	0.53	0.32	58	0.67	0.54
65	0.87	0.46	59	0.72	0.51
66	0.68	0.45	60	0.66	0.5
67	0.62	0.37	61	0.54	0.43
			62	0.5	0.39
			63	0.18	0.08
			64	0.74	0.51
			65	0.6	0.52
			66	0.53	0.45
			67	0.79	0.51
			68	0.37	0.14
			69	0.83	0.34
			70	0.6	0.43
			71	0.65	0.45
			72	0.37	0.14
			73	0.58	0.47
			74	0.87	0.4
			75	0.55	0.35
			76	0.48	0.42
			77	0.7	0.45
			78	0.83	0.44
			79	0.82	0.41
			80	0.64	0.41
			81	0.43	0.24
			82	0.59	0.42
			83	0.5	0.2
			84	0.49	0.33
			85	0.36	0.28
			86	0.59	0.43
			87	0.79	0.46
			88	0.71	0.47
			89	0.89	0.42
			90	0.41	0.38
			91	0.71	0.4
			92	0.67	0.26
			93	0.39	0.36
			94	0.48	0.37
			95	0.27	0.27
			96	0.71	0.26
			97	0.46	0.16
			98	0.69	0.31
			99	0.68	0.09
			100	0.69	0.32

STEP Reading			STEP Mathematics		
Grade 5			Grade 5		
Item No.	P-value	Point Bis	Item No.	P-value	Point Bis
			101	0.64	0.46
			102	0.75	0.43
			103	0.53	0.3
			104	0.76	0.37
			105	0.54	0.42
			106	0.44	0.34
			107	0.65	0.54
			108	0.54	0.36
			109	0.53	0.43
			110	0.84	0.46

STEP Reading			STEP Mathematics		
Grade 6			Grade 6		
Item No.	P-value	Point Bis	Item No.	P-value	Point Bis
1	0.88	0.39	1	0.7	0.53
3	0.72	0.37	3	0.73	0.29
4	0.73	0.44	4	0.68	0.38
5	0.65	0.3	5	0.71	0.45
6	0.79	0.48	6	0.74	0.55
7	0.72	0.42	7	0.76	0.36
8	0.58	0.31	8	0.3	0.36
9	0.62	0.48	9	0.8	0.39
12	0.78	0.5	10	0.82	0.43
13	0.66	0.46	11	0.61	0.46
15	0.82	0.53	12	0.43	0.32
16	0.83	0.49	13	0.67	0.44
17	0.78	0.37	14	0.77	0.24
18	0.53	0.32	15	0.55	0.5
19	0.8	0.53	16	0.54	0.39
21	0.88	0.41	17	0.76	0.48
22	0.36	0.25	18	0.66	0.44
23	0.8	0.36	19	0.76	0.47
25	0.68	0.36	21	0.74	0.37
26	0.76	0.43	22	0.54	0.32
27	0.74	0.56	23	0.73	0.43
28	0.46	0.34	24	0.87	0.33
29	0.82	0.41	25	0.85	0.41
30	0.83	0.41	26	0.68	0.38
31	0.59	0.4	27	0.6	0.25
33	0.51	0.34	28	0.32	0.15
36	0.49	0.2	29	0.55	0.46
37	0.67	0.46	30	0.68	0.34
38	0.39	0.16	31	0.9	0.35
39	0.43	0.01	32	0.5	0.33
45	0.69	0.4	33	0.88	0.32
46	0.74	0.56	34	0.5	0.46
47	0.32	0.21	35	0.43	0.46
48	0.37	0.28	36	0.7	0.52
49	0.69	0.41	37	0.68	0.4
50	0.61	0.34	38	0.48	0.47
51	0.42	0.22	39	0.52	0.45
52	0.36	0.32	40	0.69	0.46
53	0.58	0.42	41	0.3	0.24
54	0.44	0.15	42	0.68	0.39
55	0.81	0.5	43	0.35	0.3
56	0.78	0.34	44	0.66	0.39
57	0.43	0.17	45	0.58	0.36
58	0.76	0.41	46	0.71	0.46
59	0.32	0.27	47	0.56	0.43
60	0.71	0.45	48	0.51	0.4
61	0.75	0.5	49	0.6	0.48

STEP Reading			STEP Mathematics		
Grade 6			Grade 6		
Item No.	P-value	Point Bis	Item No.	P-value	Point Bis
65	0.62	0.5	50	0.82	0.5
66	0.72	0.4	51	0.44	0.47
67	0.38	0.29	52	0.78	0.52
68	0.44	0.27	53	0.8	0.49
69	0.81	0.51	54	0.82	0.38
70	0.7	0.41	55	0.76	0.43
71	0.24	0.09	56	0.72	0.46
72	0.65	0.53	57	0.86	0.42
73	0.59	0.39	58	0.94	0.34
			59	0.77	0.5
			60	0.78	0.38
			61	0.79	0.36
			62	0.65	0.51
			63	0.79	0.44
			64	0.7	0.4
			65	0.77	0.48
			66	0.32	0.25
			67	0.79	0.39
			68	0.69	0.41
			69	0.68	0.33
			70	0.7	0.43
			71	0.51	0.46
			72	0.58	0.52
			73	0.67	0.37
			74	0.82	0.52
			75	0.8	0.49
			76	0.89	0.41
			77	0.5	0.37
			78	0.29	0.21
			79	0.57	-0.03
			80	0.28	0.39
			81	0.84	0.38
			82	0.69	0.47
			83	0.6	0.51
			84	0.49	0.38
			85	0.58	0.48
			86	0.64	0.39
			87	0.61	0.46
			88	0.84	0.31
			89	0.86	0.32
			90	0.82	0.23
			91	0.8	0.43
			92	0.39	0.21
			93	0.75	0.38
			94	0.92	0.34
			95	0.49	0.17
			96	0.74	0.41
			97	0.89	0.32

STEP Reading			STEP Mathematics		
Grade 6			Grade 6		
Item No.	P-value	Point Bis	Item No.	P-value	Point Bis
	98	0.81	0.47		
	99	0.38	0.3		
	100	0.68	0.48		
	101	0.74	0.45		
	102	0.59	0.47		
	103	0.69	0.49		
	104	0.59	0.45		
	105	0.44	0.45		
	106	0.62	0.43		
	107	0.56	0.33		

STEP Reading			STEP Mathematics		
Grade 7			Grade 7		
Item No.	P-value	Point Bis	Item No.	P-value	Point Bis
1	0.95	0.32	1	0.49	0.39
2	0.88	0.42	2	0.61	0.4
3	0.59	0.41	3	0.6	0.1
4	0.51	0.37	4	0.59	0.43
5	0.71	0.36	5	0.65	0.54
6	0.64	0.32	6	0.49	0.39
7	0.94	0.38	7	0.8	0.39
8	0.69	0.44	8	0.64	0.49
9	0.72	0.36	9	0.39	0.41
10	0.77	0.17	10	0.65	0.47
12	0.69	0.34	11	0.43	0.55
13	0.7	0.53	12	0.54	0.43
15	0.77	0.35	13	0.51	0.46
16	0.8	0.48	14	0.71	0.51
17	0.5	0.29	15	0.84	0.29
18	0.58	0.3	16	0.47	0.36
19	0.84	0.42	17	0.5	0.49
20	0.63	0.31	18	0.71	0.46
21	0.78	0.43	19	0.34	0.41
23	0.41	0.26	20	0.74	0.5
24	0.55	0.25	21	0.32	0.27
25	0.45	0.26	22	0.62	0.54
26	0.71	0.43	23	0.62	0.47
27	0.44	0.23	24	0.8	0.46
28	0.44	0.32	25	0.7	0.36
29	0.87	0.31	26	0.86	0.32
30	0.67	0.45	27	0.49	0.45
31	0.64	0.25	28	0.43	0.45
32	0.7	0.37	29	0.61	0.57
34	0.75	0.41	30	0.69	0.51
35	0.79	0.46	31	0.78	0.19
36	0.8	0.36	32	0.56	0.49
39	0.7	0.42	33	0.77	0.45
40	0.62	0.5	34	0.76	0.42
42	0.68	0.4	35	0.55	0.45
43	0.47	0.37	36	0.62	0.38
44	0.45	0.18	37	0.82	0.4
45	0.51	0.22	38	0.63	0.42
46	0.49	0.31	39	0.41	0.38
47	0.84	0.48	40	0.76	0.5
48	0.43	0.25	41	0.6	0.43
49	0.61	0.49	42	0.34	0.25
50	0.6	0.28	43	0.61	0.52
51	0.53	0.24	44	0.64	0.43
52	0.66	0.46	45	0.65	0.45
53	0.86	0.47	46	0.57	0.57
54	0.76	0.54	47	0.44	0.37

STEP Reading			STEP Mathematics		
Grade 7			Grade 7		
Item No.	P-value	Point Bis	Item No.	P-value	Point Bis
55	0.55	0.39	48	0.5	0.49
56	0.51	0.3	49	0.63	0.41
57	0.81	0.46	50	0.6	0.45
58	0.56	0.23	51	0.76	0.56
60	0.26	0.13	52	0.51	0.33
61	0.69	0.41	53	0.8	0.43
62	0.63	0.32	54	0.42	0.24
63	0.4	0.23	55	0.59	0.56
64	0.49	0.27	56	0.53	0.46
			57	0.76	0.48
			58	0.6	0.49
			59	0.74	0.49
			60	0.78	0.52
			61	0.38	0.21
			62	0.61	0.48
			63	0.38	0.39
			64	0.32	0.25
			65	0.5	0.25
			66	0.86	0.44
			67	0.75	0.45
			68	0.74	0.52
			69	0.65	0.53
			70	0.84	0.42
			71	0.4	0.12
			72	0.89	0.41
			73	0.79	0.46
			74	0.7	0.35
			75	0.56	0.3
			76	0.6	0.37
			77	0.22	0.14
			78	0.54	0.45
			79	0.48	0.36
			80	0.44	0.4
			81	0.63	0.56
			82	0.4	0.41
			83	0.64	0.57
			84	0.51	0.55
			85	0.48	0.5
			86	0.67	0.48
			87	0.56	0.37
			88	0.76	0.41
			89	0.44	0.28
			90	0.86	0.42
			91	0.79	0.31
			92	0.71	0.31
			93	0.49	0.38
			94	0.42	0.21
			95	0.39	0.24

STEP Reading			STEP Mathematics			
Grade 7			Grade 7			
Item No.	P-value	Point Bis	Item No.	P-value	Point Bis	
	96	0.49	0.53			
	97	0.49	0.39			
	98	0.31	0.13			
	99	0.46	0.44			
	100	0.48	0.26			
	101	0.4	0.42			
	102	0.65	0.43			
	103	0.5	0.44			
	104	0.54	0.48			
	105	0.64	0.4			

STEP Reading			STEP Mathematics		
Grade 8			Grade 8		
Item No.	P-value	Point Bis	Item No.	P-value	Point Bis
1	0.97	0.26	1	0.63	0.38
2	0.98	0.2	2	0.68	0.45
3	0.51	0.23	3	0.48	0.52
4	0.6	0.21	4	0.47	0.3
5	0.79	0.2	5	0.5	0.43
6	0.45	0.04	6	0.62	0.5
7	0.26	0.11	7	0.29	0.28
8	0.65	0.28	8	0.78	0.49
9	0.46	0.22	9	0.68	0.4
10	0.95	0.33	10	0.63	0.46
11	0.77	0.37	11	0.55	0.31
12	0.58	0.3	12	0.54	0.49
13	0.65	0.38	13	0.73	0.4
14	0.52	0.21	14	0.49	0.46
15	0.66	0.34	15	0.78	0.38
17	0.78	0.28	16	0.43	0.35
20	0.74	0.4	17	0.67	0.48
21	0.47	0.28	18	0.57	0.41
22	0.67	0.37	19	0.54	0.5
23	0.73	0.43	20	0.8	0.34
24	0.79	0.43	21	0.9	0.35
25	0.73	0.45	22	0.54	0.55
26	0.67	0.36	23	0.72	0.41
27	0.66	0.36	24	0.71	0.38
28	0.87	0.41	25	0.66	0.42
29	0.69	0.43	26	0.66	0.34
30	0.56	0.18	27	0.47	0.41
31	0.72	0.39	28	0.49	0.31
33	0.69	0.32	29	0.52	0.29
34	0.48	0.28	30	0.43	0.21
38	0.71	0.32	31	0.52	0.42
39	0.76	0.51	32	0.67	0.35
41	0.76	0.34	33	0.68	0.45
42	0.61	0.45	34	0.76	0.55
44	0.68	0.26	35	0.83	0.4
45	0.54	0.21	36	0.39	0.06
46	0.59	0.23	37	0.46	0.27
47	0.83	0.44	38	0.7	0.44
48	0.56	0.35	39	0.66	0.44
49	0.66	0.43	40	0.55	0.39
50	0.63	0.35	41	0.61	0.39
51	0.5	0.41	42	0.86	0.43
52	0.85	0.45	43	0.73	0.49
53	0.69	0.5	44	0.57	0.4
54	0.54	0.41	45	0.81	0.43
55	0.63	0.27	46	0.58	0.51
56	0.45	0.13	47	0.7	0.44

STEP Reading			STEP Mathematics		
Grade 8			Grade 8		
Item No.	P-value	Point Bis	Item No.	P-value	Point Bis
57	0.63	0.39	48	0.62	0.54
58	0.71	0.37	49	0.67	0.55
			50	0.55	0.52
			51	0.61	0.45
			52	0.55	0.42
			53	0.46	0.55
			54	0.69	0.48
			55	0.77	0.5
			56	0.69	0.47
			57	0.57	0.38
			58	0.85	0.43
			59	0.6	0.41
			60	0.69	0.53
			61	0.62	0.49
			62	0.7	0.54
			63	0.76	0.51
			64	0.55	0.45
			65	0.4	0.41
			66	0.46	0.36
			67	0.52	0.41
			68	0.74	0.45
			69	0.66	0.47
			70	0.53	0.41
			71	0.67	0.47
			72	0.33	0.31
			73	0.37	0.36
			74	0.43	0.33
			75	0.42	0.36
			76	0.69	0.45
			77	0.49	0.55
			78	0.57	0.35
			79	0.5	0.37
			80	0.42	0.34
			81	0.37	0.28
			82	0.5	0.5
			83	0.63	0.25
			84	0.64	0.43
			85	0.75	0.51
			86	0.64	0.41
			87	0.85	0.31
			88	0.36	0.32
			89	0.23	0.21
			90	0.48	0.18
			91	0.37	0.27
			92	0.2	0.11
			93	0.26	0.28
			94	0.31	0.15
			95	0.77	0.39

STEP Reading			STEP Mathematics		
Grade 8			Grade 8		
Item No.	P-value	Point Bis	Item No.	P-value	Point Bis
	96	0.5	96	0.46	
	97	0.76	97	0.47	
	98	0.71	98	0.51	
	99	0.35	99	0.15	
	100	0.65	100	0.41	
	101	0.81	101	0.32	
	102	0.74	102	0.42	
	103	0.55	103	0.4	
	104	0.26	104	0.29	
	105	0.34	105	0.12	

STEP Reading			STEP Mathematics		
Grade 11			Grade 11		
Item No.	P-value	Point Bis	Item No.	P-value	Point Bis
2	0.89	0.41	1	0.62	0.33
3	0.75	0.23	2	0.69	0.53
4	0.86	0.2	3	0.55	0.36
6	0.8	0.35	4	0.47	0.44
7	0.42	0.34	5	0.64	0.47
8	0.86	0.35	6	0.54	0.2
9	0.7	0.35	7	0.72	0.31
10	0.59	0.39	8	0.44	0.25
11	0.79	0.36	9	0.44	0.45
12	0.69	0.28	10	0.57	0.51
13	0.64	0.41	11	0.56	0.47
14	0.38	0.11	13	0.76	0.31
18	0.86	0.37	14	0.35	0.36
20	0.86	0.48	15	0.67	0.29
21	0.33	0.37	16	0.39	0.19
22	0.61	0.32	17	0.39	0.24
23	0.62	0.3	18	0.54	0.43
24	0.75	0.28	19	0.62	0.38
25	0.6	0.26	20	0.26	0.13
26	0.83	0.33	21	0.76	0.32
27	0.89	0.4	23	0.77	0.45
29	0.57	0.21	25	0.57	0.38
30	0.7	0.32	26	0.33	0.33
32	0.63	0.39	27	0.36	0.3
33	0.84	0.42	28	0.41	0.42
34	0.69	0.35	29	0.5	0.35
35	0.72	0.39	30	0.4	0.44
36	0.67	0.3	31	0.88	0.3
37	0.73	0.44	32	0.59	0.36
38	0.81	0.47	33	0.64	0.44
39	0.59	0.38	34	0.57	0.43
44	0.69	0.37	35	0.68	0.37
45	0.9	0.46	36	0.78	0.52
46	0.41	0.29	37	0.93	0.27
47	0.43	0.11	38	0.78	0.52
48	0.9	0.4	39	0.72	0.42
49	0.72	0.44	40	0.63	0.43
50	0.55	0.43	41	0.78	0.51
51	0.85	0.5	42	0.65	0.54
52	0.56	0.27	43	0.61	0.57
			44	0.81	0.49
			45	0.88	0.42
			46	0.89	0.39
			47	0.72	0.39
			48	0.55	0.4
			49	0.81	0.38
			50	0.81	0.26

STEP Reading			STEP Mathematics			
Grade 11			Grade 11			
Item No.	P-value	Point Bis	Item No.	P-value	Point Bis	
	51	0.7	0.38			
	52	0.62	0.23			
	53	0.66	0.45			
	54	0.62	0.47			
	55	0.67	0.4			
	56	0.83	0.45			
	57	0.55	0.54			
	58	0.42	0.27			
	59	0.56	0.52			
	60	0.64	0.55			
	61	0.57	0.31			
	62	0.29	0.34			
	63	0.76	0.33			
	64	0.73	0.55			
	65	0.36	0.46			
	66	0.48	0.37			
	67	0.5	0.42			
	68	0.59	0.51			
	69	0.65	0.53			
	70	0.58	0.51			
	71	0.68	0.5			
	72	0.49	0.45			
	73	0.58	0.56			
	74	0.61	0.51			
	75	0.7	0.51			
	76	0.86	0.37			
	77	0.28	0.32			
	78	0.67	0.53			
	79	0.5	0.5			
	80	0.67	0.51			
	81	0.62	0.39			
	82	0.49	0.54			
	83	0.39	0.26			
	84	0.52	0.27			
	85	0.66	0.45			
	86	0.5	0.54			
	87	0.51	0.44			
	88	0.46	0.33			
	89	0.45	0.41			
	90	0.49	0.51			
	91	0.62	0.5			
	92	0.54	0.4			
	93	0.38	0.4			
	94	0.51	0.27			
	95	0.9	0.35			
	96	0.44	0.29			
	97	0.8	0.39			
	98	0.66	0.54			

STEP Reading			STEP Mathematics		
Grade 11			Grade 11		
Item No.	P-value	Point Bis	Item No.	P-value	Point Bis
	99	0.41	99	0.41	0.35
	100	0.51	100	0.51	0.33
	101	0.49	101	0.49	0.43
	102	0.52	102	0.52	0.47
	103	0.56	103	0.56	0.44
	104	0.43	104	0.43	0.3
	105	0.64	105	0.64	0.54
	106	0.5	106	0.5	0.38
	107	0.68	107	0.68	0.35
	108	0.53	108	0.53	0.46

APPENDIX E: Raw Score to Scale Score Conversion Tables

2005 Dakota STEP CRT Reading Raw Score to Scale Score Conversion Table: Grade 3

Raw Score	Scale Score (SS)	Standard Error (SEM)	SS-1SEM	SS+1SEM
1	443	36	407	479
2	469	26	443	495
3	486	22	464	508
4	497	19	478	516
5	507	18	489	525
6	515	16	499	531
7	523	15	508	538
8	529	15	514	544
9	535	14	521	549
10	541	14	527	555
11	546	13	533	559
12	551	13	538	564
13	555	13	542	568
14	560	12	548	572
15	564	12	552	576
16	568	12	556	580
17	572	12	560	584
18	576	12	564	588
19	579	11	568	590
20	583	11	572	594
21	587	11	576	598
22	590	11	579	601
23	594	11	583	605
24	598	11	587	609
25	601	11	590	612
26	605	11	594	616
27	608	11	597	619
28	612	11	601	623
29	615	11	604	626
30	619	11	608	630
31	623	11	612	634
32	627	12	615	639
33	630	12	618	642
34	634	12	622	646
35	639	12	627	651
36	643	12	631	655
37	647	13	634	660
38	652	13	639	665
39	657	14	643	671
40	663	14	649	677
41	669	15	654	684
42	676	16	660	692
43	683	17	666	700
44	693	19	674	712
45	704	21	683	725
46	719	26	693	745
47	745	36	709	781
48	788	64	724	852

2005 Dakota STEP CRT Reading Raw Score to Scale Score Conversion Table: Grade 4

Raw Score	Scale Score (SS)	Standard Error (SEM)	SS-1SEM	SS+1SEM
1	450	36	414	486
2	475	26	449	501
3	491	22	469	513
4	503	19	484	522
5	512	17	495	529
6	520	16	504	536
7	527	15	512	542
8	534	15	519	549
9	540	14	526	554
10	545	13	532	558
11	550	13	537	563
12	555	13	542	568
13	559	12	547	571
14	563	12	551	575
15	567	12	555	579
16	571	12	559	583
17	575	11	564	586
18	579	11	568	590
19	583	11	572	594
20	586	11	575	597
21	590	11	579	601
22	593	11	582	604
23	596	11	585	607
24	600	11	589	611
25	603	11	592	614
26	607	11	596	618
27	610	11	599	621
28	613	11	602	624
29	617	11	606	628
30	620	11	609	631
31	624	11	613	635
32	627	11	616	638
33	631	11	620	642
34	634	11	623	645
35	638	11	627	649
36	642	12	630	654
37	646	12	634	658
38	650	12	638	662
39	654	12	642	666
40	659	13	646	672
41	663	13	650	676
42	668	14	654	682
43	674	14	660	688
44	680	15	665	695
45	687	16	671	703
46	695	17	678	712
47	704	19	685	723
48	715	21	694	736
49	731	26	705	757
50	756	36	720	792
51	799	64	735	863

2005 Dakota STEP CRT Reading Raw Score to Scale Score Conversion Table: Grade 5

Raw Score	Scale Score (SS)	Standard Error (SEM)	SS-1SEM	SS+1SEM
1	474	36	438	510
2	500	26	474	526
3	515	21	494	536
4	526	19	507	545
5	535	17	518	552
6	543	16	527	559
7	549	15	534	564
8	555	14	541	569
9	560	13	547	573
10	565	13	552	578
11	570	12	558	582
12	574	12	562	586
13	578	12	566	590
14	582	11	571	593
15	586	11	575	597
16	589	11	578	600
17	593	11	582	604
18	596	11	585	607
19	599	11	588	610
20	602	10	592	612
21	606	10	596	616
22	609	10	599	619
23	612	10	602	622
24	615	10	605	625
25	618	10	608	628
26	620	10	610	630
27	623	10	613	633
28	626	10	616	636
29	629	10	619	639
30	632	10	622	642
31	635	10	625	645
32	638	10	628	648
33	641	10	631	651
34	644	10	634	654
35	647	10	637	657
36	650	11	639	661
37	653	11	642	664
38	657	11	646	668
39	660	11	649	671
40	664	11	653	675
41	667	11	656	678
42	671	12	659	683
43	675	12	663	687
44	679	12	667	691
45	683	13	670	696
46	688	13	675	701
47	693	13	680	706
48	698	14	684	712
49	704	15	689	719
50	711	16	695	727
51	719	17	702	736
52	728	19	709	747
53	739	21	718	760
54	755	26	729	781
55	780	36	744	816
56	823	64	759	887

2005 Dakota STEP CRT Reading Raw Score to Scale Score Conversion Table: Grade 6

Raw Score	Scale Score (SS)	Standard Error (SEM)	SS-1SEM	SS+1SEM
1	490	36	454	526
2	515	25	490	540
3	530	21	509	551
4	542	19	523	561
5	551	17	534	568
6	558	16	542	574
7	565	15	550	580
8	570	14	556	584
9	576	13	563	589
10	580	13	567	593
11	585	12	573	597
12	589	12	577	601
13	593	12	581	605
14	597	11	586	608
15	601	11	590	612
16	604	11	593	615
17	608	11	597	619
18	611	11	600	622
19	615	11	604	626
20	618	11	607	629
21	621	10	611	631
22	624	10	614	634
23	627	10	617	637
24	630	10	620	640
25	633	10	623	643
26	636	10	626	646
27	639	10	629	649
28	642	10	632	652
29	645	10	635	655
30	648	10	638	658
31	651	10	641	661
32	654	10	644	664
33	657	10	647	667
34	661	11	650	672
35	664	11	653	675
36	667	11	656	678
37	670	11	659	681
38	674	11	663	685
39	677	11	666	688
40	681	11	670	692
41	684	11	673	695
42	688	12	676	700
43	692	12	680	704
44	696	12	684	708
45	701	13	688	714
46	706	13	693	719
47	711	14	697	725
48	716	14	702	730
49	722	15	707	737
50	729	16	713	745
51	737	17	720	754
52	746	19	727	765
53	757	21	736	778
54	772	26	746	798
55	798	36	762	834
56	841	64	777	905

2005 Dakota STEP CRT Reading Raw Score to Scale Score Conversion Table: Grade 7

Raw Score	Scale Score (SS)	Standard Error (SEM)	SS-1SEM	SS+1SEM
1	495	36	459	531
2	521	26	495	547
3	537	22	515	559
4	549	19	530	568
5	558	17	541	575
6	566	16	550	582
7	573	15	558	588
8	579	14	565	593
9	585	14	571	599
10	590	13	577	603
11	594	13	581	607
12	599	12	587	611
13	603	12	591	615
14	607	12	595	619
15	611	11	600	622
16	614	11	603	625
17	618	11	607	629
18	621	11	610	632
19	625	11	614	636
20	628	11	617	639
21	631	11	620	642
22	634	10	624	644
23	637	10	627	647
24	640	10	630	650
25	643	10	633	653
26	646	10	636	656
27	649	10	639	659
28	652	10	642	662
29	655	10	645	665
30	658	10	648	668
31	661	10	651	671
32	664	10	654	674
33	667	10	657	677
34	670	10	660	680
35	673	10	663	683
36	676	10	666	686
37	680	11	669	691
38	683	11	672	694
39	686	11	675	697
40	690	11	679	701
41	693	11	682	704
42	697	11	686	708
43	701	12	689	713
44	705	12	693	717
45	709	12	697	721
46	713	13	700	726
47	718	13	705	731
48	724	14	710	738
49	729	15	714	744
50	736	16	720	752
51	743	17	726	760
52	752	19	733	771
53	763	21	742	784
54	779	26	753	805
55	804	36	768	840
56	847	64	783	911

2005 Dakota STEP CRT Reading Raw Score to Scale Score Conversion Table: Grade 8

Raw Score	Scale Score (SS)	Standard Error (SEM)	SS-1SEM	SS+1SEM
1	504	37	467	541
2	532	27	505	559
3	549	22	527	571
4	562	20	542	582
5	572	18	554	590
6	580	17	563	597
7	588	16	572	604
8	594	15	579	609
9	600	14	586	614
10	606	14	592	620
11	611	13	598	624
12	616	13	603	629
13	620	12	608	632
14	625	12	613	637
15	629	12	617	641
16	633	12	621	645
17	636	11	625	647
18	640	11	629	651
19	644	11	633	655
20	647	11	636	658
21	650	11	639	661
22	654	11	643	665
23	657	11	646	668
24	661	11	650	672
25	664	11	653	675
26	667	11	656	678
27	670	11	659	681
28	674	11	663	685
29	677	11	666	688
30	681	11	670	692
31	684	11	673	695
32	688	11	677	699
33	691	11	680	702
34	695	11	684	706
35	699	12	687	711
36	703	12	691	715
37	707	12	695	719
38	711	13	698	724
39	716	13	703	729
40	721	13	708	734
41	726	14	712	740
42	732	15	717	747
43	739	16	723	755
44	747	17	730	764
45	756	19	737	775
46	767	21	746	788
47	782	26	756	808
48	808	36	772	844
49	851	64	787	915

2005 Dakota STEP CRT Reading Raw Score to Scale Score Conversion Table: Grade 11

Raw Score	Scale Score (SS)	Standard Error (SEM)	SS-1SEM	SS+1SEM
1	558	36	522	594
2	584	26	558	610
3	600	22	578	622
4	611	19	592	630
5	621	17	604	638
6	629	16	613	645
7	636	15	621	651
8	642	15	627	657
9	648	14	634	662
10	654	14	640	668
11	659	13	646	672
12	664	13	651	677
13	668	13	655	681
14	673	13	660	686
15	677	12	665	689
16	682	12	670	694
17	686	12	674	698
18	690	12	678	702
19	694	12	682	706
20	698	12	686	710
21	703	12	691	715
22	707	12	695	719
23	711	12	699	723
24	715	12	703	727
25	719	12	707	731
26	724	13	711	737
27	729	13	716	742
28	733	13	720	746
29	738	13	725	751
30	743	14	729	757
31	749	14	735	763
32	755	15	740	770
33	761	15	746	776
34	769	16	753	785
35	777	18	759	795
36	786	19	767	805
37	798	22	776	820
38	814	26	788	840
39	840	36	804	876
40	884	64	820	948

Dakota STEP CRT Mathematics Raw Score to Scale Score Conversion Table: Grade 3

Raw Score	Scale Score (SS)	Standard Error (SEM)	SS-1SEM	SS+1SEM
1	406	35	371	441
2	430	25	405	455
3	445	21	424	466
4	456	18	438	474
5	464	16	448	480
6	471	15	456	486
7	477	14	463	491
8	482	13	469	495
9	487	13	474	500
10	491	12	479	503
11	495	11	484	506
12	499	11	488	510
13	502	11	491	513
14	506	10	496	516
15	509	10	499	519
16	511	10	501	521
17	514	10	504	524
18	517	9	508	526
19	519	9	510	528
20	522	9	513	531
21	524	9	515	533
22	526	9	517	535
23	528	9	519	537
24	531	9	522	540
25	533	8	525	541
26	535	8	527	543
27	537	8	529	545
28	539	8	531	547
29	540	8	532	548
30	542	8	534	550
31	544	8	536	552
32	546	8	538	554
33	548	8	540	556
34	549	8	541	557
35	551	8	543	559
36	553	8	545	561
37	554	8	546	562
38	556	8	548	564
39	558	8	550	566
40	559	7	552	566
41	561	7	554	568
42	562	7	555	569
43	564	7	557	571
44	566	7	559	573
45	567	7	560	574
46	569	7	562	576
47	570	7	563	577
48	572	7	565	579
49	573	7	566	580
50	575	7	568	582
51	576	7	569	583
52	578	7	571	585
53	579	7	572	586

Raw Score	Scale Score (SS)	Standard Error (SEM)	SS-1SEM	SS+1SEM
54	581	7	574	588
55	582	7	575	589
56	584	7	577	591
57	586	7	579	593
58	587	7	580	594
59	589	7	582	596
60	590	7	583	597
61	592	7	585	599
62	593	7	586	600
63	595	7	588	602
64	596	7	589	603
65	598	8	590	606
66	600	8	592	608
67	601	8	593	609
68	603	8	595	611
69	605	8	597	613
70	606	8	598	614
71	608	8	600	616
72	610	8	602	618
73	612	8	604	620
74	613	8	605	621
75	615	8	607	623
76	617	8	609	625
77	619	8	611	627
78	621	8	613	629
79	623	8	615	631
80	625	8	617	633
81	627	9	618	636
82	629	9	620	638
83	631	9	622	640
84	634	9	625	643
85	636	9	627	645
86	638	9	629	647
87	641	10	631	651
88	643	10	633	653
89	646	10	636	656
90	649	10	639	659
91	652	10	642	662
92	655	11	644	666
93	659	11	648	670
94	662	12	650	674
95	666	12	654	678
96	671	13	658	684
97	676	13	663	689
98	681	14	667	695
99	687	15	672	702
100	694	16	678	710
101	702	18	684	720
102	713	21	692	734
103	728	25	703	753
104	753	35	718	788
105	775	64	711	839

Dakota STEP CRT Mathematics Raw Score to Scale Score Conversion Table: Grade 4

Raw Score	Scale Score (SS)	Standard Error (SEM)	SS-1SEM	SS+1SEM
1	439	35	404	474
2	464	25	439	489
3	479	21	458	500
4	490	18	472	508
5	499	16	483	515
6	506	15	491	521
7	512	14	498	526
8	517	13	504	530
9	522	13	509	535
10	526	12	514	538
11	530	12	518	542
12	534	11	523	545
13	538	11	527	549
14	541	11	530	552
15	544	10	534	554
16	547	10	537	557
17	550	10	540	560
18	552	10	542	562
19	555	9	546	564
20	558	9	549	567
21	560	9	551	569
22	562	9	553	571
23	565	9	556	574
24	567	9	558	576
25	569	9	560	578
26	571	9	562	580
27	573	8	565	581
28	575	8	567	583
29	577	8	569	585
30	579	8	571	587
31	581	8	573	589
32	583	8	575	591
33	585	8	577	593
34	586	8	578	594
35	588	8	580	596
36	590	8	582	598
37	592	8	584	600
38	593	8	585	601
39	595	8	587	603
40	597	8	589	605
41	598	8	590	606
42	600	8	592	608
43	602	8	594	610
44	603	8	595	611
45	605	8	597	613
46	607	8	599	615
47	608	8	600	616
48	610	7	603	617
49	611	7	604	618
50	613	7	606	620
51	615	7	608	622
52	616	7	609	623
53	618	7	611	625

Raw Score	Scale Score (SS)	Standard Error (SEM)	SS-1SEM	SS+1SEM
54	619	7	612	626
55	621	7	614	628
56	623	7	616	630
57	624	7	617	631
58	626	8	618	634
59	627	8	619	635
60	629	8	621	637
61	631	8	623	639
62	632	8	624	640
63	634	8	626	642
64	636	8	628	644
65	637	8	629	645
66	639	8	631	647
67	641	8	633	649
68	642	8	634	650
69	644	8	636	652
70	646	8	638	654
71	648	8	640	656
72	649	8	641	657
73	651	8	643	659
74	653	8	645	661
75	655	8	647	663
76	657	8	649	665
77	659	8	651	667
78	661	8	653	669
79	663	9	654	672
80	665	9	656	674
81	667	9	658	676
82	669	9	660	678
83	672	9	663	681
84	674	9	665	683
85	676	9	667	685
86	679	9	670	688
87	682	10	672	692
88	684	10	674	694
89	687	10	677	697
90	690	10	680	700
91	693	11	682	704
92	697	11	686	708
93	700	11	689	711
94	704	12	692	716
95	708	12	696	720
96	712	13	699	725
97	717	13	704	730
98	722	14	708	736
99	729	15	714	744
100	736	16	720	752
101	744	18	726	762
102	755	21	734	776
103	770	25	745	795
104	795	35	760	830
105	838	64	774	902

Dakota STEP CRT Mathematics Raw Score to Scale Score Conversion Table: Grade 5

Raw Score	Scale Score (SS)	Standard Error (SEM)	SS-1SEM	SS+1SEM
1	464	35	429	499
2	489	25	464	514
3	504	21	483	525
4	515	18	497	533
5	523	16	507	539
6	530	15	515	545
7	536	14	522	550
8	542	13	529	555
9	547	13	534	560
10	551	12	539	563
11	555	12	543	567
12	558	11	547	569
13	562	11	551	573
14	565	10	555	575
15	568	10	558	578
16	571	10	561	581
17	574	10	564	584
18	576	9	567	585
19	579	9	570	588
20	581	9	572	590
21	584	9	575	593
22	586	9	577	595
23	588	9	579	597
24	590	9	581	599
25	592	8	584	600
26	594	8	586	602
27	596	8	588	604
28	598	8	590	606
29	600	8	592	608
30	602	8	594	610
31	604	8	596	612
32	605	8	597	613
33	607	8	599	615
34	609	8	601	617
35	611	8	603	619
36	612	8	604	620
37	614	8	606	622
38	616	8	608	624
39	617	8	609	625
40	619	7	612	626
41	620	7	613	627
42	622	7	615	629
43	624	7	617	631
44	625	7	618	632
45	627	7	620	634
46	628	7	621	635
47	630	7	623	637
48	631	7	624	638
49	633	7	626	640
50	634	7	627	641
51	636	7	629	643
52	637	7	630	644
53	639	7	632	646

Raw Score	Scale Score (SS)	Standard Error (SEM)	SS-1SEM	SS+1SEM
54	640	7	633	647
55	642	7	635	649
56	643	7	636	650
57	645	7	638	652
58	647	7	640	654
59	648	7	641	655
60	650	7	643	657
61	651	7	644	658
62	653	7	646	660
63	654	7	647	661
64	656	7	649	663
65	658	8	650	666
66	659	8	651	667
67	661	8	653	669
68	662	8	654	670
69	664	8	656	672
70	666	8	658	674
71	668	8	660	676
72	669	8	661	677
73	671	8	663	679
74	673	8	665	681
75	675	8	667	683
76	677	8	669	685
77	679	8	671	687
78	681	8	673	689
79	683	8	675	691
80	685	9	676	694
81	687	9	678	696
82	689	9	680	698
83	691	9	682	700
84	693	9	684	702
85	696	9	687	705
86	698	9	689	707
87	701	10	691	711
88	703	10	693	713
89	706	10	696	716
90	709	10	699	719
91	712	11	701	723
92	715	11	704	726
93	719	11	708	730
94	723	12	711	735
95	727	12	715	739
96	731	13	718	744
97	736	13	723	749
98	741	14	727	755
99	747	15	732	762
100	754	16	738	770
101	763	18	745	781
102	773	21	752	794
103	788	25	763	813
104	813	35	778	848
105	836	50	786	886

Dakota STEP CRT Mathematics Raw Score to Scale Score Conversion Table: Grade 6

Raw Score	Scale Score (SS)	Standard Error (SEM)	SS-1SEM	SS+1SEM
1	471	35	436	506
2	496	25	471	521
3	511	21	490	532
4	522	18	504	540
5	530	16	514	546
6	537	15	522	552
7	543	14	529	557
8	548	13	535	561
9	553	13	540	566
10	557	12	545	569
11	561	12	549	573
12	565	11	554	576
13	568	11	557	579
14	572	10	562	582
15	575	10	565	585
16	578	10	568	588
17	580	10	570	590
18	583	10	573	593
19	585	9	576	594
20	588	9	579	597
21	590	9	581	599
22	593	9	584	602
23	595	9	586	604
24	597	9	588	606
25	599	8	591	607
26	601	8	593	609
27	603	8	595	611
28	605	8	597	613
29	607	8	599	615
30	609	8	601	617
31	611	8	603	619
32	612	8	604	620
33	614	8	606	622
34	616	8	608	624
35	618	8	610	626
36	619	8	611	627
37	621	8	613	629
38	623	8	615	631
39	624	8	616	632
40	626	8	618	634
41	628	8	620	636
42	629	7	622	636
43	631	7	624	638
44	632	7	625	639
45	634	7	627	641
46	636	7	629	643
47	637	7	630	644
48	639	7	632	646
49	640	7	633	647
50	642	7	635	649
51	643	7	636	650
52	645	7	638	652
53	646	7	639	653

Raw Score	Scale Score (SS)	Standard Error (SEM)	SS-1SEM	SS+1SEM
54	648	7	641	655
55	650	7	643	657
56	651	7	644	658
57	653	7	646	660
58	654	7	647	661
59	656	7	649	663
60	657	7	650	664
61	659	7	652	666
62	661	7	654	668
63	662	8	654	670
64	664	8	656	672
65	665	8	657	673
66	667	8	659	675
67	669	8	661	677
68	670	8	662	678
69	672	8	664	680
70	674	8	666	682
71	676	8	668	684
72	677	8	669	685
73	679	8	671	687
74	681	8	673	689
75	683	8	675	691
76	685	8	677	693
77	687	8	679	695
78	689	8	681	697
79	691	8	683	699
80	693	9	684	702
81	695	9	686	704
82	697	9	688	706
83	699	9	690	708
84	702	9	693	711
85	704	9	695	713
86	706	9	697	715
87	709	10	699	719
88	712	10	702	722
89	714	10	704	724
90	717	10	707	727
91	720	11	709	731
92	724	11	713	735
93	727	11	716	738
94	731	12	719	743
95	735	12	723	747
96	739	13	726	752
97	744	13	731	757
98	749	14	735	763
99	755	15	740	770
100	762	16	746	778
101	771	18	753	789
102	782	21	761	803
103	796	25	771	821
104	821	35	786	856
105	864	64	800	928

Dakota STEP CRT Mathematics Raw Score to Scale Score Conversion Table: Grade 7

Raw Score	Scale Score (SS)	Standard Error (SEM)	SS-1SEM	SS+1SEM
1	503	35	468	538
2	527	25	502	552
3	542	21	521	563
4	553	18	535	571
5	561	16	545	577
6	568	15	553	583
7	574	14	560	588
8	579	13	566	592
9	584	12	572	596
10	588	12	576	600
11	592	11	581	603
12	596	11	585	607
13	599	11	588	610
14	602	10	592	612
15	605	10	595	615
16	608	10	598	618
17	611	10	601	621
18	614	9	605	623
19	616	9	607	625
20	618	9	609	627
21	621	9	612	630
22	623	9	614	632
23	625	9	616	634
24	627	9	618	636
25	629	8	621	637
26	631	8	623	639
27	633	8	625	641
28	635	8	627	643
29	637	8	629	645
30	639	8	631	647
31	641	8	633	649
32	643	8	635	651
33	644	8	636	652
34	646	8	638	654
35	648	8	640	656
36	649	8	641	657
37	651	8	643	659
38	653	8	645	661
39	654	8	646	662
40	656	7	649	663
41	658	7	651	665
42	659	7	652	666
43	661	7	654	668
44	662	7	655	669
45	664	7	657	671
46	665	7	658	672
47	667	7	660	674
48	668	7	661	675
49	670	7	663	677
50	671	7	664	678
51	673	7	666	680
52	674	7	667	681
53	676	7	669	683

Raw Score	Scale Score (SS)	Standard Error (SEM)	SS-1SEM	SS+1SEM
54	677	7	670	684
55	679	7	672	686
56	680	7	673	687
57	682	7	675	689
58	684	7	677	691
59	685	7	678	692
60	687	7	680	694
61	688	7	681	695
62	690	7	683	697
63	691	7	684	698
64	693	7	686	700
65	694	7	687	701
66	696	7	689	703
67	698	8	690	706
68	699	8	691	707
69	701	8	693	709
70	703	8	695	711
71	704	8	696	712
72	706	8	698	714
73	708	8	700	716
74	709	8	701	717
75	711	8	703	719
76	713	8	705	721
77	715	8	707	723
78	717	8	709	725
79	719	8	711	727
80	721	8	713	729
81	723	9	714	732
82	725	9	716	734
83	727	9	718	736
84	729	9	720	738
85	732	9	723	741
86	734	9	725	743
87	736	9	727	745
88	739	10	729	749
89	742	10	732	752
90	745	10	735	755
91	748	10	738	758
92	751	11	740	762
93	754	11	743	765
94	758	11	747	769
95	762	12	750	774
96	766	12	754	778
97	771	13	758	784
98	776	14	762	790
99	782	15	767	797
100	789	16	773	805
101	797	18	779	815
102	808	21	787	829
103	822	25	797	847
104	847	35	812	882
105	890	64	826	954

Dakota STEP CRT Mathematics Raw Score to Scale Score Conversion Table: Grade 8

Raw Score	Scale Score (SS)	Standard Error (SEM)	SS-1SEM	SS+1SEM
1	515	35	480	550
2	540	25	515	565
3	554	21	533	575
4	565	18	547	583
5	573	16	557	589
6	580	15	565	595
7	586	14	572	600
8	592	13	579	605
9	596	13	583	609
10	601	12	589	613
11	604	11	593	615
12	608	11	597	619
13	611	11	600	622
14	615	10	605	625
15	618	10	608	628
16	621	10	611	631
17	623	10	613	633
18	626	9	617	635
19	628	9	619	637
20	631	9	622	640
21	633	9	624	642
22	635	9	626	644
23	638	9	629	647
24	640	9	631	649
25	642	8	634	650
26	644	8	636	652
27	646	8	638	654
28	648	8	640	656
29	649	8	641	657
30	651	8	643	659
31	653	8	645	661
32	655	8	647	663
33	657	8	649	665
34	658	8	650	666
35	660	8	652	668
36	662	8	654	670
37	663	8	655	671
38	665	8	657	673
39	667	8	659	675
40	668	7	661	675
41	670	7	663	677
42	671	7	664	678
43	673	7	666	680
44	675	7	668	682
45	676	7	669	683
46	678	7	671	685
47	679	7	672	686
48	681	7	674	688
49	682	7	675	689
50	684	7	677	691
51	685	7	678	692
52	687	7	680	694
53	688	7	681	695

Raw Score	Scale Score (SS)	Standard Error (SEM)	SS-1SEM	SS+1SEM
54	690	7	683	697
55	691	7	684	698
56	693	7	686	700
57	695	7	688	702
58	696	7	689	703
59	698	7	691	705
60	699	7	692	706
61	701	7	694	708
62	702	7	695	709
63	704	7	697	711
64	706	7	699	713
65	707	8	699	715
66	709	8	701	717
67	710	8	702	718
68	712	8	704	720
69	714	8	706	722
70	715	8	707	723
71	717	8	709	725
72	719	8	711	727
73	721	8	713	729
74	722	8	714	730
75	724	8	716	732
76	726	8	718	734
77	728	8	720	736
78	730	8	722	738
79	732	8	724	740
80	734	8	726	742
81	736	9	727	745
82	738	9	729	747
83	740	9	731	749
84	743	9	734	752
85	745	9	736	754
86	747	9	738	756
87	750	10	740	760
88	753	10	743	763
89	755	10	745	765
90	758	10	748	768
91	761	10	751	771
92	765	11	754	776
93	768	11	757	779
94	772	12	760	784
95	776	12	764	788
96	780	13	767	793
97	785	13	772	798
98	790	14	776	804
99	796	15	781	811
100	803	16	787	819
101	811	18	793	829
102	822	21	801	843
103	837	25	812	862
104	862	35	827	897
105	884	50	834	934

Dakota STEP CRT Mathematics Raw Score to Scale Score Conversion Table: Grade 11

Raw Score	Scale Score (SS)	Standard Error (SEM)	SS-1SEM	SS+1SEM
1	537	35	502	572
2	562	25	537	587
3	577	21	556	598
4	587	18	569	605
5	596	16	580	612
6	603	15	588	618
7	609	14	595	623
8	614	13	601	627
9	619	13	606	632
10	623	12	611	635
11	628	12	616	640
12	631	11	620	642
13	635	11	624	646
14	638	11	627	649
15	641	10	631	651
16	644	10	634	654
17	647	10	637	657
18	649	10	639	659
19	652	9	643	661
20	654	9	645	663
21	657	9	648	666
22	659	9	650	668
23	661	9	652	670
24	664	9	655	673
25	666	9	657	675
26	668	8	660	676
27	670	8	662	678
28	672	8	664	680
29	674	8	666	682
30	675	8	667	683
31	677	8	669	685
32	679	8	671	687
33	681	8	673	689
34	683	8	675	691
35	684	8	676	692
36	686	8	678	694
37	688	8	680	696
38	689	8	681	697
39	691	8	683	699
40	693	8	685	701
41	694	8	686	702
42	696	7	689	703
43	698	7	691	705
44	699	7	692	706
45	701	7	694	708
46	702	7	695	709
47	704	7	697	711
48	705	7	698	712
49	707	7	700	714
50	708	7	701	715
51	710	7	703	717
52	711	7	704	718
53	713	7	706	720

Raw Score	Scale Score (SS)	Standard Error (SEM)	SS-1SEM	SS+1SEM
54	715	7	708	722
55	716	7	709	723
56	718	7	711	725
57	719	7	712	726
58	721	7	714	728
59	722	7	715	729
60	724	7	717	731
61	725	7	718	732
62	727	7	720	734
63	728	7	721	735
64	730	7	723	737
65	732	7	725	739
66	733	8	725	741
67	735	8	727	743
68	736	8	728	744
69	738	8	730	746
70	740	8	732	748
71	742	8	734	750
72	743	8	735	751
73	745	8	737	753
74	747	8	739	755
75	749	8	741	757
76	750	8	742	758
77	752	8	744	760
78	754	8	746	762
79	756	8	748	764
80	758	8	750	766
81	760	9	751	769
82	762	9	753	771
83	764	9	755	773
84	767	9	758	776
85	769	9	760	778
86	771	9	762	780
87	774	9	765	783
88	776	10	766	786
89	779	10	769	789
90	782	10	772	792
91	785	10	775	795
92	788	11	777	799
93	792	11	781	803
94	795	11	784	806
95	799	12	787	811
96	803	12	791	815
97	808	13	795	821
98	813	14	799	827
99	819	15	804	834
100	826	16	810	842
101	834	18	816	852
102	845	21	824	866
103	860	25	835	885
104	885	35	850	920
105	907	50	857	957

APPENDIX F: Raw Score to Scale Score Frequency Tables

2005 Dakota STEP CRT Reading Raw Score to Scale Score Frequency Table: Grade 3

Raw Score	Scale Score (SS)	Freq	%	Cum Freq	Cum %
1	443	0	0.00	0	0.00
2	469	0	0.00	0	0.00
3	486	0	0.00	0	0.00
4	497	0	0.00	0	0.00
5	507	0	0.00	0	0.00
6	515	2	0.02	2	0.02
7	523	5	0.05	7	0.07
8	529	11	0.11	18	0.18
9	535	11	0.11	29	0.29
10	541	23	0.23	52	0.52
11	546	41	0.41	93	0.93
12	551	52	0.52	145	1.45
13	555	78	0.78	223	2.23
14	560	82	0.82	305	3.05
15	564	68	0.68	373	3.73
16	568	114	1.14	487	4.87
17	572	127	1.27	614	6.15
18	576	137	1.37	751	7.52
19	579	160	1.60	911	9.12
20	583	157	1.57	1068	10.69
21	587	170	1.70	1238	12.39
22	590	190	1.90	1428	14.29
23	594	214	2.14	1642	16.43
24	598	209	2.09	1851	18.53
25	601	232	2.32	2083	20.85
26	605	254	2.54	2337	23.39
27	608	258	2.58	2595	25.97
28	612	295	2.95	2890	28.93
29	615	306	3.06	3196	31.99
30	619	336	3.36	3532	35.35
31	623	392	3.92	3924	39.28
32	627	410	4.10	4334	43.38
33	630	389	3.89	4723	47.27
34	634	412	4.12	5135	51.40
35	639	421	4.21	5556	55.61
36	643	512	5.12	6068	60.73
37	647	462	4.62	6530	65.36
38	652	494	4.94	7024	70.30
39	657	541	5.41	7565	75.72
40	663	511	5.11	8076	80.83
41	669	452	4.52	8528	85.36
42	676	388	3.88	8916	89.24
43	683	367	3.67	9283	92.91
44	693	298	2.98	9581	95.90
45	704	209	2.09	9790	97.99
46	719	125	1.25	9915	99.24
47	745	60	0.60	9975	99.84
48	788	16	0.16	9991	100.00

2005 Dakota STEP CRT Reading Raw Score to Scale Score Frequency Table: Grade 4

Raw Score	Scale Score (SS)	Freq	%	Cum Freq	Cum %
1	450	0	0.00	0	0.00
2	475	0	0.00	0	0.00
3	491	0	0.00	0	0.00
4	503	0	0.00	0	0.00
5	512	1	0.01	1	0.01
6	520	0	0.00	1	0.01
7	527	2	0.02	3	0.03
8	534	4	0.04	7	0.07
9	540	5	0.05	12	0.12
10	545	12	0.12	24	0.24
11	550	15	0.15	39	0.39
12	555	43	0.43	82	0.81
13	559	40	0.40	122	1.21
14	563	47	0.47	169	1.68
15	567	65	0.65	234	2.33
16	571	74	0.74	308	3.06
17	575	78	0.78	386	3.84
18	579	87	0.86	473	4.70
19	583	115	1.14	588	5.84
20	586	117	1.16	705	7.01
21	590	139	1.38	844	8.39
22	593	137	1.36	981	9.75
23	596	125	1.24	1106	10.99
24	600	154	1.53	1260	12.52
25	603	153	1.52	1413	14.04
26	607	172	1.71	1585	15.75
27	610	197	1.96	1782	17.71
28	613	207	2.06	1989	19.77
29	617	249	2.47	2238	22.24
30	620	259	2.57	2497	24.81
31	624	310	3.08	2807	27.89
32	627	313	3.11	3120	31.00
33	631	318	3.16	3438	34.16
34	634	352	3.50	3790	37.66
35	638	378	3.76	4168	41.42
36	642	383	3.81	4551	45.23
37	646	436	4.33	4987	49.56
38	650	468	4.65	5455	54.21
39	654	516	5.13	5971	59.34
40	659	490	4.87	6461	64.21
41	663	577	5.73	7038	69.94
42	668	519	5.16	7557	75.10
43	674	541	5.38	8098	80.47
44	680	499	4.96	8597	85.43
45	687	418	4.15	9015	89.59
46	695	379	3.77	9394	93.35
47	704	289	2.87	9683	96.22
48	715	207	2.06	9890	98.28
49	731	115	1.14	10005	99.42
50	756	40	0.40	10045	99.82
51	799	18	0.18	10063	100.00

2005 Dakota STEP CRT Reading Raw Score to Scale Score Frequency Table: Grade 5

Raw Score	Scale Score (SS)	Freq	%	Cum Freq	Cum %
1	474	0	0.00	0	0.00
2	500	0	0.00	0	0.00
3	515	0	0.00	0	0.00
4	526	0	0.00	0	0.00
5	535	0	0.00	0	0.00
6	543	0	0.00	0	0.00
7	549	0	0.00	0	0.00
8	555	4	0.04	4	0.04
9	560	10	0.10	14	0.14
10	565	11	0.11	25	0.24
11	570	24	0.23	49	0.47
12	574	39	0.38	88	0.85
13	578	47	0.45	135	1.30
14	582	49	0.47	184	1.78
15	586	84	0.81	268	2.59
16	589	87	0.84	355	3.43
17	593	94	0.91	449	4.33
18	596	92	0.89	541	5.22
19	599	137	1.32	678	6.54
20	602	131	1.26	809	7.81
21	606	149	1.44	958	9.25
22	609	147	1.42	1105	10.67
23	612	173	1.67	1278	12.34
24	615	199	1.92	1477	14.26
25	618	185	1.79	1662	16.04
26	620	184	1.78	1846	17.82
27	623	217	2.09	2063	19.91
28	626	224	2.16	2287	22.08
29	629	251	2.42	2538	24.50
30	632	262	2.53	2800	27.03
31	635	266	2.57	3066	29.59
32	638	318	3.07	3384	32.66
33	641	313	3.02	3697	35.69
34	644	310	2.99	4007	38.68
35	647	331	3.19	4338	41.87
36	650	356	3.44	4694	45.31
37	653	387	3.74	5081	49.04
38	657	391	3.77	5472	52.82
39	660	385	3.72	5857	56.53
40	664	427	4.12	6284	60.66
41	667	465	4.49	6749	65.14
42	671	427	4.12	7176	69.27
43	675	441	4.26	7617	73.52
44	679	458	4.42	8075	77.94
45	683	405	3.91	8480	81.85
46	688	377	3.64	8857	85.49
47	693	357	3.45	9214	88.94
48	698	316	3.05	9530	91.99
49	704	270	2.61	9800	94.59
50	711	222	2.14	10022	96.74
51	719	168	1.62	10190	98.36
52	728	96	0.93	10286	99.29
53	739	45	0.43	10331	99.72
54	755	22	0.21	10353	99.93
55	780	7	0.07	10360	100.00
56	823	0	0.00	10360	100.00

2005 Dakota STEP CRT Reading Raw Score to Scale Score Frequency Table: Grade 6

Raw Score	Scale Score (SS)	Freq	%	Cum Freq	Cum %
1	490	0	0.00	0	0.00
2	515	0	0.00	0	0.00
3	530	0	0.00	0	0.00
4	542	1	0.01	1	0.01
5	551	0	0.00	1	0.01
6	558	1	0.01	2	0.02
7	565	1	0.01	3	0.03
8	570	7	0.07	10	0.09
9	576	22	0.21	32	0.30
10	580	28	0.27	60	0.57
11	585	32	0.30	92	0.87
12	589	58	0.55	150	1.42
13	593	81	0.77	231	2.19
14	597	76	0.72	307	2.92
15	601	126	1.20	433	4.11
16	604	124	1.18	557	5.29
17	608	143	1.36	700	6.65
18	611	158	1.50	858	8.15
19	615	163	1.55	1021	9.70
20	618	168	1.60	1189	11.29
21	621	167	1.59	1356	12.88
22	624	165	1.57	1521	14.45
23	627	198	1.88	1719	16.33
24	630	176	1.67	1895	18.00
25	633	186	1.77	2081	19.77
26	636	188	1.79	2269	21.55
27	639	227	2.16	2496	23.71
28	642	233	2.21	2729	25.92
29	645	226	2.15	2955	28.07
30	648	267	2.54	3222	30.60
31	651	268	2.55	3490	33.15
32	654	286	2.72	3776	35.87
33	657	306	2.91	4082	38.77
34	661	324	3.08	4406	41.85
35	664	310	2.94	4716	44.79
36	667	346	3.29	5062	48.08
37	670	373	3.54	5435	51.62
38	674	365	3.47	5800	55.09
39	677	425	4.04	6225	59.13
40	681	423	4.02	6648	63.15
41	684	424	4.03	7072	67.17
42	688	447	4.25	7519	71.42
43	692	462	4.39	7981	75.81
44	696	447	4.25	8428	80.05
45	701	420	3.99	8848	84.04
46	706	359	3.41	9207	87.45
47	711	325	3.09	9532	90.54
48	716	298	2.83	9830	93.37
49	722	240	2.28	10070	95.65
50	729	185	1.76	10255	97.41
51	737	134	1.27	10389	98.68
52	746	81	0.77	10470	99.45
53	757	40	0.38	10510	99.83
54	772	16	0.15	10526	99.98
55	798	2	0.02	10528	100.00
56	841	0	0.00	10528	100.00

2005 Dakota STEP CRT Reading Raw Score to Scale Score Frequency Table: Grade 7

Raw Score	Scale Score (SS)	Freq	%	Cum Freq	Cum %
1	495	0	0.00	0	0.00
2	521	0	0.00	0	0.00
3	537	0	0.00	0	0.00
4	549	0	0.00	0	0.00
5	558	0	0.00	0	0.00
6	566	1	0.01	1	0.01
7	573	4	0.04	5	0.05
8	579	10	0.09	15	0.14
9	585	14	0.13	29	0.27
10	590	24	0.22	53	0.49
11	594	39	0.36	92	0.85
12	599	45	0.41	137	1.26
13	603	49	0.45	186	1.71
14	607	73	0.67	259	2.38
15	611	74	0.68	333	3.07
16	614	106	0.98	439	4.04
17	618	130	1.20	569	5.24
18	621	126	1.16	695	6.40
19	625	132	1.22	827	7.61
20	628	148	1.36	975	8.98
21	631	173	1.59	1148	10.57
22	634	154	1.42	1302	11.99
23	637	177	1.63	1479	13.62
24	640	195	1.80	1674	15.41
25	643	187	1.72	1861	17.13
26	646	179	1.65	2040	18.78
27	649	209	1.92	2249	20.71
28	652	201	1.85	2450	22.56
29	655	233	2.15	2683	24.70
30	658	233	2.15	2916	26.85
31	661	266	2.45	3182	29.30
32	664	287	2.64	3469	31.94
33	667	323	2.97	3792	34.91
34	670	346	3.19	4138	38.10
35	673	331	3.05	4469	41.15
36	676	380	3.50	4849	44.65
37	680	438	4.03	5287	48.68
38	683	417	3.84	5704	52.52
39	686	454	4.18	6158	56.70
40	690	459	4.23	6617	60.92
41	693	502	4.62	7119	65.55
42	697	507	4.67	7626	70.21
43	701	503	4.63	8129	74.85
44	705	468	4.31	8597	79.15
45	709	442	4.07	9039	83.22
46	713	417	3.84	9456	87.06
47	718	345	3.18	9801	90.24
48	724	327	3.01	10128	93.25
49	729	262	2.41	10390	95.66
50	736	196	1.80	10586	97.47
51	743	123	1.13	10709	98.60
52	752	87	0.80	10796	99.40
53	763	46	0.42	10842	99.83
54	779	15	0.14	10857	99.96
55	804	4	0.04	10861	100.00
56	847	0	0.00	10861	100.00

2005 Dakota STEP CRT Reading Raw Score to Scale Score Frequency Table: Grade 8

Raw Score	Scale Score (SS)	Freq	%	Cum Freq	Cum %
1	504	1	0.01	1	0.01
2	532	0	0.00	1	0.01
3	549	0	0.00	1	0.01
4	562	0	0.00	1	0.01
5	572	1	0.01	2	0.02
6	580	0	0.00	2	0.02
7	588	4	0.04	6	0.06
8	594	6	0.06	12	0.11
9	600	11	0.10	23	0.22
10	606	19	0.18	42	0.39
11	611	40	0.37	82	0.77
12	616	35	0.33	117	1.10
13	620	56	0.52	173	1.62
14	625	67	0.63	240	2.25
15	629	88	0.82	328	3.07
16	633	110	1.03	438	4.10
17	636	125	1.17	563	5.27
18	640	146	1.37	709	6.64
19	644	159	1.49	868	8.13
20	647	164	1.54	1032	9.67
21	650	205	1.92	1237	11.59
22	654	218	2.04	1455	13.63
23	657	220	2.06	1675	15.69
24	661	266	2.49	1941	18.18
25	664	289	2.71	2230	20.89
26	667	290	2.72	2520	23.60
27	670	316	2.96	2836	26.56
28	674	345	3.23	3181	29.80
29	677	365	3.42	3546	33.21
30	681	368	3.45	3914	36.66
31	684	420	3.93	4334	40.60
32	688	465	4.36	4799	44.95
33	691	472	4.42	5271	49.37
34	695	489	4.58	5760	53.95
35	699	521	4.88	6281	58.83
36	703	526	4.93	6807	63.76
37	707	528	4.95	7335	68.71
38	711	501	4.69	7836	73.40
39	716	548	5.13	8384	78.53
40	721	556	5.21	8940	83.74
41	726	452	4.23	9392	87.97
42	732	381	3.57	9773	91.54
43	739	322	3.02	10095	94.56
44	747	253	2.37	10348	96.93
45	756	152	1.42	10500	98.35
46	767	115	1.08	10615	99.43
47	782	43	0.40	10658	99.83
48	808	14	0.13	10672	99.96
49	851	4	0.04	10676	100.00

2005 Dakota STEP CRT Reading Raw Score to Scale Score Frequency Table: Grade 11

Raw Score	Scale Score (SS)	Freq	%	Cum Freq	Cum %
1	558	0	0.00	0	0.00
2	584	0	0.00	0	0.00
3	600	2	0.02	2	0.02
4	611	3	0.03	5	0.05
5	621	3	0.03	8	0.09
6	629	9	0.10	17	0.18
7	636	18	0.19	35	0.37
8	642	18	0.19	53	0.57
9	648	43	0.46	96	1.03
10	654	56	0.60	152	1.63
11	659	70	0.75	222	2.37
12	664	61	0.65	283	3.03
13	668	90	0.96	373	3.99
14	673	114	1.22	487	5.21
15	677	107	1.14	594	6.35
16	682	141	1.51	735	7.86
17	686	153	1.64	888	9.50
18	690	156	1.67	1044	11.16
19	694	226	2.42	1270	13.58
20	698	181	1.94	1451	15.52
21	703	223	2.38	1674	17.90
22	707	281	3.00	1955	20.90
23	711	320	3.42	2275	24.33
24	715	395	4.22	2670	28.55
25	719	401	4.29	3071	32.84
26	724	424	4.53	3495	37.37
27	729	506	5.41	4001	42.78
28	733	502	5.37	4503	48.15
29	738	537	5.74	5040	53.89
30	743	575	6.15	5615	60.04
31	749	600	6.42	6215	66.46
32	755	587	6.28	6802	72.73
33	761	549	5.87	7351	78.60
34	769	575	6.15	7926	84.75
35	777	470	5.03	8396	89.78
36	786	344	3.68	8740	93.46
37	798	312	3.34	9052	96.79
38	814	188	2.01	9240	98.80
39	840	89	0.95	9329	99.75
40	884	23	0.25	9352	100.00

Dakota STEP CRT Mathematics Raw Score to Scale Score Frequency Table: Grade 3

Raw Score	Scale Score (SS)	Freq	%	Cum Freq	Cum %
1	406	0	0.00	0	0.00
2	430	0	0.00	0	0.00
3	445	0	0.00	0	0.00
4	456	0	0.00	0	0.00
5	464	0	0.00	0	0.00
6	471	1	0.01	1	0.01
7	477	0	0.00	1	0.01
8	482	0	0.00	1	0.01
9	487	0	0.00	1	0.01
10	491	0	0.00	1	0.01
11	495	1	0.01	2	0.02
12	499	0	0.00	2	0.02
13	502	0	0.00	2	0.02
14	506	1	0.01	3	0.03
15	509	0	0.00	3	0.03
16	511	0	0.00	3	0.03
17	514	2	0.02	5	0.05
18	517	1	0.01	6	0.06
19	519	5	0.05	11	0.11
20	522	8	0.08	19	0.19
21	524	3	0.03	22	0.22
22	526	13	0.13	35	0.35
23	528	6	0.06	41	0.41
24	531	17	0.17	58	0.58
25	533	10	0.10	68	0.68
26	535	15	0.15	83	0.83
27	537	22	0.22	105	1.05
28	539	19	0.19	124	1.24
29	540	31	0.31	155	1.55
30	542	35	0.35	190	1.90
31	544	37	0.37	227	2.27
32	546	43	0.43	270	2.70
33	548	50	0.50	320	3.20
34	549	42	0.42	362	3.62
35	551	51	0.51	413	4.13
36	553	42	0.42	455	4.55
37	554	39	0.39	494	4.94
38	556	68	0.68	562	5.61
39	558	60	0.60	622	6.21
40	559	81	0.81	703	7.02
41	561	82	0.82	785	7.84
42	562	86	0.86	871	8.70
43	564	64	0.64	935	9.34
44	566	72	0.72	1007	10.06
45	567	78	0.78	1085	10.84
46	569	66	0.66	1151	11.50
47	570	86	0.86	1237	12.36
48	572	99	0.99	1336	13.35
49	573	92	0.92	1428	14.27
50	575	89	0.89	1517	15.15
51	576	94	0.94	1611	16.09
52	578	79	0.79	1690	16.88
53	579	89	0.89	1779	17.77

Raw Score	Scale Score (SS)	Freq	%	Cum Freq	Cum %
54	581	108	1.08	1887	18.85
55	582	110	1.10	1997	19.95
56	584	125	1.25	2122	21.20
57	586	112	1.12	2234	22.32
58	587	96	0.96	2330	23.28
59	589	117	1.17	2447	24.45
60	590	113	1.13	2560	25.57
61	592	140	1.40	2700	26.97
62	593	121	1.21	2821	28.18
63	595	129	1.29	2950	29.47
64	596	141	1.41	3091	30.88
65	598	125	1.25	3216	32.13
66	600	153	1.53	3369	33.66
67	601	145	1.45	3514	35.10
68	603	169	1.69	3683	36.79
69	605	168	1.68	3851	38.47
70	606	171	1.71	4022	40.18
71	608	194	1.94	4216	42.12
72	610	171	1.71	4387	43.83
73	612	172	1.72	4559	45.54
74	613	212	2.12	4771	47.66
75	615	196	1.96	4967	49.62
76	617	189	1.89	5156	51.51
77	619	214	2.14	5370	53.65
78	621	189	1.89	5559	55.53
79	623	210	2.10	5769	57.63
80	625	192	1.92	5961	59.55
81	627	210	2.10	6171	61.65
82	629	219	2.19	6390	63.84
83	631	249	2.49	6639	66.32
84	634	220	2.20	6859	68.52
85	636	212	2.12	7071	70.64
86	638	219	2.19	7290	72.83
87	641	261	2.61	7551	75.43
88	643	192	1.92	7743	77.35
89	646	225	2.25	7968	79.60
90	649	235	2.35	8203	81.95
91	652	196	1.96	8399	83.91
92	655	213	2.13	8612	86.03
93	659	213	2.13	8825	88.16
94	662	193	1.93	9018	90.09
95	666	185	1.85	9203	91.94
96	671	175	1.75	9378	93.69
97	676	160	1.60	9538	95.28
98	681	126	1.26	9664	96.54
99	687	115	1.15	9779	97.69
100	694	89	0.89	9868	98.58
101	702	58	0.58	9926	99.16
102	713	42	0.42	9968	99.58
103	728	30	0.30	9998	99.88
104	753	9	0.09	10007	99.97
105	775	3	0.03	10010	100.00

Dakota STEP CRT Mathematics Raw Score to Scale Score Frequency Table: Grade 4

Raw Score	Scale Score (SS)	Freq	%	Cum Freq	Cum %
1	439	0	0.00	0	0.00
2	464	0	0.00	0	0.00
3	479	0	0.00	0	0.00
4	490	0	0.00	0	0.00
5	499	0	0.00	0	0.00
6	506	0	0.00	0	0.00
7	512	0	0.00	0	0.00
8	517	0	0.00	0	0.00
9	522	1	0.01	1	0.01
10	526	4	0.04	5	0.05
11	530	0	0.00	5	0.05
12	534	1	0.01	6	0.06
13	538	0	0.00	6	0.06
14	541	0	0.00	6	0.06
15	544	1	0.01	7	0.07
16	547	1	0.01	8	0.08
17	550	2	0.02	10	0.10
18	552	2	0.02	12	0.12
19	555	2	0.02	14	0.14
20	558	6	0.06	20	0.20
21	560	7	0.07	27	0.27
22	562	11	0.11	38	0.38
23	565	20	0.20	58	0.58
24	567	22	0.22	80	0.79
25	569	20	0.20	100	0.99
26	571	29	0.29	129	1.28
27	573	29	0.29	158	1.57
28	575	51	0.51	209	2.07
29	577	56	0.56	265	2.63
30	579	44	0.44	309	3.06
31	581	61	0.60	370	3.67
32	583	62	0.61	432	4.28
33	585	74	0.73	506	5.02
34	586	66	0.65	572	5.67
35	588	84	0.83	656	6.50
36	590	73	0.72	729	7.23
37	592	77	0.76	806	7.99
38	593	84	0.83	890	8.82
39	595	95	0.94	985	9.77
40	597	87	0.86	1072	10.63
41	598	106	1.05	1178	11.68
42	600	96	0.95	1274	12.63
43	602	104	1.03	1378	13.66
44	603	93	0.92	1471	14.58
45	605	96	0.95	1567	15.54
46	607	111	1.10	1678	16.64
47	608	119	1.18	1797	17.82
48	610	100	0.99	1897	18.81
49	611	119	1.18	2016	19.99
50	613	114	1.13	2130	21.12
51	615	117	1.16	2247	22.28
52	616	113	1.12	2360	23.40
53	618	147	1.46	2507	24.86

Raw Score	Scale Score (SS)	Freq	%	Cum Freq	Cum %
54	619	156	1.55	2663	26.40
55	621	131	1.30	2794	27.70
56	623	145	1.44	2939	29.14
57	624	156	1.55	3095	30.69
58	626	135	1.34	3230	32.02
59	627	130	1.29	3360	33.31
60	629	163	1.62	3523	34.93
61	631	172	1.71	3695	36.63
62	632	184	1.82	3879	38.46
63	634	176	1.74	4055	40.20
64	636	156	1.55	4211	41.75
65	637	196	1.94	4407	43.69
66	639	175	1.74	4582	45.43
67	641	178	1.76	4760	47.19
68	642	169	1.68	4929	48.87
69	644	200	1.98	5129	50.85
70	646	166	1.65	5295	52.50
71	648	210	2.08	5505	54.58
72	649	210	2.08	5715	56.66
73	651	230	2.28	5945	58.94
74	653	196	1.94	6141	60.89
75	655	195	1.93	6336	62.82
76	657	203	2.01	6539	64.83
77	659	212	2.10	6751	66.93
78	661	199	1.97	6950	68.91
79	663	219	2.17	7169	71.08
80	665	210	2.08	7379	73.16
81	667	196	1.94	7575	75.10
82	669	244	2.42	7819	77.52
83	672	190	1.88	8009	79.41
84	674	184	1.82	8193	81.23
85	676	186	1.84	8379	83.08
86	679	189	1.87	8568	84.95
87	682	181	1.79	8749	86.74
88	684	160	1.59	8909	88.33
89	687	163	1.62	9072	89.95
90	690	159	1.58	9231	91.52
91	693	151	1.50	9382	93.02
92	697	126	1.25	9508	94.27
93	700	116	1.15	9624	95.42
94	704	96	0.95	9720	96.37
95	708	69	0.68	9789	97.06
96	712	71	0.70	9860	97.76
97	717	60	0.59	9920	98.35
98	722	51	0.51	9971	98.86
99	729	33	0.33	10004	99.19
100	736	32	0.32	10036	99.50
101	744	24	0.24	10060	99.74
102	755	18	0.18	10078	99.92
103	770	6	0.06	10084	99.98
104	795	2	0.02	10086	100.00
105	838	0	0.00	10086	100.00

Dakota STEP CRT Mathematics Raw Score to Scale Score Frequency Table: Grade 5

Raw Score	Scale Score (SS)	Freq	%	Cum Freq	Cum %
1	464	0	0.00	0	0.00
2	489	0	0.00	0	0.00
3	504	0	0.00	0	0.00
4	515	0	0.00	0	0.00
5	523	0	0.00	0	0.00
6	530	0	0.00	0	0.00
7	536	0	0.00	0	0.00
8	542	1	0.01	1	0.01
9	547	0	0.00	1	0.01
10	551	0	0.00	1	0.01
11	555	0	0.00	1	0.01
12	558	0	0.00	1	0.01
13	562	0	0.00	1	0.01
14	565	0	0.00	1	0.01
15	568	0	0.00	1	0.01
16	571	3	0.03	4	0.04
17	574	3	0.03	7	0.07
18	576	2	0.02	9	0.09
19	579	4	0.04	13	0.13
20	581	6	0.06	19	0.18
21	584	18	0.17	37	0.36
22	586	12	0.12	49	0.47
23	588	18	0.17	67	0.65
24	590	36	0.35	103	0.99
25	592	34	0.33	137	1.32
26	594	41	0.40	178	1.72
27	596	45	0.43	223	2.15
28	598	52	0.50	275	2.65
29	600	49	0.47	324	3.13
30	602	85	0.82	409	3.94
31	604	74	0.71	483	4.66
32	605	88	0.85	571	5.51
33	607	90	0.87	661	6.38
34	609	92	0.89	753	7.26
35	611	65	0.63	818	7.89
36	612	79	0.76	897	8.65
37	614	93	0.90	990	9.55
38	616	94	0.91	1084	10.46
39	617	104	1.00	1188	11.46
40	619	96	0.93	1284	12.38
41	620	100	0.96	1384	13.35
42	622	104	1.00	1488	14.35
43	624	107	1.03	1595	15.38
44	625	124	1.20	1719	16.58
45	627	131	1.26	1850	17.84
46	628	125	1.21	1975	19.05
47	630	106	1.02	2081	20.07
48	631	139	1.34	2220	21.41
49	633	113	1.09	2333	22.50
50	634	129	1.24	2462	23.75
51	636	140	1.35	2602	25.10
52	637	141	1.36	2743	26.46
53	639	157	1.51	2900	27.97

Raw Score	Scale Score (SS)	Freq	%	Cum Freq	Cum %
54	640	130	1.25	3030	29.22
55	642	137	1.32	3167	30.55
56	643	154	1.49	3321	32.03
57	645	156	1.50	3477	33.54
58	647	159	1.53	3636	35.07
59	648	145	1.40	3781	36.47
60	650	155	1.49	3936	37.96
61	651	163	1.57	4099	39.54
62	653	157	1.51	4256	41.05
63	654	180	1.74	4436	42.79
64	656	192	1.85	4628	44.64
65	658	180	1.74	4808	46.37
66	659	171	1.65	4979	48.02
67	661	161	1.55	5140	49.58
68	662	188	1.81	5328	51.39
69	664	188	1.81	5516	53.20
70	666	196	1.89	5712	55.09
71	668	194	1.87	5906	56.96
72	669	190	1.83	6096	58.80
73	671	210	2.03	6306	60.82
74	673	196	1.89	6502	62.71
75	675	187	1.80	6689	64.52
76	677	205	1.98	6894	66.49
77	679	216	2.08	7110	68.58
78	681	227	2.19	7337	70.77
79	683	199	1.92	7536	72.69
80	685	228	2.20	7764	74.88
81	687	181	1.75	7945	76.63
82	689	174	1.68	8119	78.31
83	691	158	1.52	8277	79.83
84	693	208	2.01	8485	81.84
85	696	205	1.98	8690	83.82
86	698	175	1.69	8865	85.50
87	701	168	1.62	9033	87.12
88	703	159	1.53	9192	88.66
89	706	162	1.56	9354	90.22
90	709	130	1.25	9484	91.47
91	712	149	1.44	9633	92.91
92	715	132	1.27	9765	94.18
93	719	109	1.05	9874	95.24
94	723	97	0.94	9971	96.17
95	727	102	0.98	10073	97.15
96	731	61	0.59	10134	97.74
97	736	64	0.62	10198	98.36
98	741	54	0.52	10252	98.88
99	747	38	0.37	10290	99.25
100	754	31	0.30	10321	99.55
101	763	17	0.16	10338	99.71
102	773	20	0.19	10358	99.90
103	788	5	0.05	10363	99.95
104	813	5	0.05	10368	100.00
105	836	0	0.00	10368	100.00

Dakota STEP CRT Mathematics Raw Score to Scale Score Frequency Table: Grade 6

Raw Score	Scale Score (SS)	Freq	%	Cum Freq	Cum %
1	471	1	0.01	1	0.01
2	496	0	0.00	1	0.01
3	511	0	0.00	1	0.01
4	522	0	0.00	1	0.01
5	530	1	0.01	2	0.02
6	537	0	0.00	2	0.02
7	543	0	0.00	2	0.02
8	548	0	0.00	2	0.02
9	553	0	0.00	2	0.02
10	557	0	0.00	2	0.02
11	561	0	0.00	2	0.02
12	565	0	0.00	2	0.02
13	568	3	0.03	5	0.05
14	572	2	0.02	7	0.07
15	575	1	0.01	8	0.08
16	578	1	0.01	9	0.09
17	580	1	0.01	10	0.09
18	583	0	0.00	10	0.09
19	585	13	0.12	23	0.22
20	588	4	0.04	27	0.26
21	590	7	0.07	34	0.32
22	593	12	0.11	46	0.44
23	595	21	0.20	67	0.64
24	597	28	0.27	95	0.90
25	599	28	0.27	123	1.17
26	601	32	0.30	155	1.47
27	603	39	0.37	194	1.84
28	605	53	0.50	247	2.34
29	607	49	0.46	296	2.81
30	609	61	0.58	357	3.39
31	611	69	0.65	426	4.04
32	612	71	0.67	497	4.72
33	614	68	0.65	565	5.36
34	616	57	0.54	622	5.90
35	618	73	0.69	695	6.59
36	619	68	0.65	763	7.24
37	621	72	0.68	835	7.92
38	623	85	0.81	920	8.73
39	624	74	0.70	994	9.43
40	626	75	0.71	1069	10.14
41	628	74	0.70	1143	10.85
42	629	91	0.86	1234	11.71
43	631	89	0.84	1323	12.55
44	632	100	0.95	1423	13.50
45	634	90	0.85	1513	14.36
46	636	101	0.96	1614	15.31
47	637	108	1.02	1722	16.34
48	639	108	1.02	1830	17.36
49	640	97	0.92	1927	18.28
50	642	108	1.02	2035	19.31
51	643	128	1.21	2163	20.52
52	645	109	1.03	2272	21.56
53	646	122	1.16	2394	22.72

Raw Score	Scale Score (SS)	Freq	%	Cum Freq	Cum %
54	648	122	1.16	2516	23.87
55	650	138	1.31	2654	25.18
56	651	139	1.32	2793	26.50
57	653	138	1.31	2931	27.81
58	654	128	1.21	3059	29.03
59	656	134	1.27	3193	30.30
60	657	159	1.51	3352	31.81
61	659	140	1.33	3492	33.13
62	661	160	1.52	3652	34.65
63	662	159	1.51	3811	36.16
64	664	124	1.18	3935	37.34
65	665	192	1.82	4127	39.16
66	667	169	1.60	4296	40.76
67	669	195	1.85	4491	42.61
68	670	174	1.65	4665	44.26
69	672	191	1.81	4856	46.08
70	674	168	1.59	5024	47.67
71	676	204	1.94	5228	49.61
72	677	203	1.93	5431	51.53
73	679	182	1.73	5613	53.26
74	681	183	1.74	5796	55.00
75	683	185	1.76	5981	56.75
76	685	188	1.78	6169	58.53
77	687	187	1.77	6356	60.31
78	689	197	1.87	6553	62.18
79	691	226	2.14	6779	64.32
80	693	205	1.95	6984	66.27
81	695	219	2.08	7203	68.35
82	697	217	2.06	7420	70.41
83	699	216	2.05	7636	72.45
84	702	214	2.03	7850	74.49
85	704	182	1.73	8032	76.21
86	706	187	1.77	8219	77.99
87	709	211	2.00	8430	79.99
88	712	215	2.04	8645	82.03
89	714	222	2.11	8867	84.14
90	717	198	1.88	9065	86.01
91	720	191	1.81	9256	87.83
92	724	184	1.75	9440	89.57
93	727	179	1.70	9619	91.27
94	731	166	1.58	9785	92.85
95	735	137	1.30	9922	94.15
96	739	112	1.06	10034	95.21
97	744	122	1.16	10156	96.37
98	749	104	0.99	10260	97.35
99	755	83	0.79	10343	98.14
100	762	82	0.78	10425	98.92
101	771	42	0.40	10467	99.32
102	782	40	0.38	10507	99.70
103	796	20	0.19	10527	99.89
104	821	10	0.09	10537	99.98
105	864	2	0.02	10539	100.00

Dakota STEP CRT Mathematics Raw Score to Scale Score Frequency Table: Grade 7

Raw Score	Scale Score (SS)	Freq	%	Cum Freq	Cum %
1	503	0	0.00	0	0.00
2	527	1	0.01	1	0.01
3	542	1	0.01	2	0.02
4	553	0	0.00	2	0.02
5	561	1	0.01	3	0.03
6	568	1	0.01	4	0.04
7	574	2	0.02	6	0.06
8	579	2	0.02	8	0.07
9	584	1	0.01	9	0.08
10	588	1	0.01	10	0.09
11	592	2	0.02	12	0.11
12	596	1	0.01	13	0.12
13	599	2	0.02	15	0.14
14	602	1	0.01	16	0.15
15	605	2	0.02	18	0.17
16	608	5	0.05	23	0.21
17	611	9	0.08	32	0.29
18	614	8	0.07	40	0.37
19	616	21	0.19	61	0.56
20	618	22	0.20	83	0.76
21	621	37	0.34	120	1.10
22	623	44	0.40	164	1.51
23	625	55	0.51	219	2.01
24	627	65	0.60	284	2.61
25	629	67	0.62	351	3.23
26	631	85	0.78	436	4.01
27	633	104	0.96	540	4.97
28	635	91	0.84	631	5.80
29	637	120	1.10	751	6.91
30	639	127	1.17	878	8.07
31	641	108	0.99	986	9.07
32	643	135	1.24	1121	10.31
33	644	140	1.29	1261	11.60
34	646	126	1.16	1387	12.76
35	648	117	1.08	1504	13.83
36	649	124	1.14	1628	14.97
37	651	123	1.13	1751	16.10
38	653	135	1.24	1886	17.34
39	654	141	1.30	2027	18.64
40	656	112	1.03	2139	19.67
41	658	122	1.12	2261	20.79
42	659	126	1.16	2387	21.95
43	661	126	1.16	2513	23.11
44	662	148	1.36	2661	24.47
45	664	129	1.19	2790	25.66
46	665	131	1.20	2921	26.86
47	667	134	1.23	3055	28.09
48	668	140	1.29	3195	29.38
49	670	137	1.26	3332	30.64
50	671	127	1.17	3459	31.81
51	673	135	1.24	3594	33.05
52	674	145	1.33	3739	34.38
53	676	163	1.50	3902	35.88

Raw Score	Scale Score (SS)	Freq	%	Cum Freq	Cum %
54	677	155	1.43	4057	37.31
55	679	133	1.22	4190	38.53
56	680	158	1.45	4348	39.99
57	682	155	1.43	4503	41.41
58	684	179	1.65	4682	43.06
59	685	187	1.72	4869	44.78
60	687	193	1.77	5062	46.55
61	688	163	1.50	5225	48.05
62	690	171	1.57	5396	49.62
63	691	161	1.48	5557	51.10
64	693	143	1.32	5700	52.42
65	694	152	1.40	5852	53.82
66	696	170	1.56	6022	55.38
67	698	187	1.72	6209	57.10
68	699	167	1.54	6376	58.64
69	701	156	1.43	6532	60.07
70	703	177	1.63	6709	61.70
71	704	169	1.55	6878	63.25
72	706	162	1.49	7040	64.74
73	708	159	1.46	7199	66.20
74	709	173	1.59	7372	67.79
75	711	162	1.49	7534	69.28
76	713	184	1.69	7718	70.98
77	715	168	1.54	7886	72.52
78	717	154	1.42	8040	73.94
79	719	149	1.37	8189	75.31
80	721	169	1.55	8358	76.86
81	723	155	1.43	8513	78.29
82	725	162	1.49	8675	79.78
83	727	168	1.54	8843	81.32
84	729	169	1.55	9012	82.88
85	732	159	1.46	9171	84.34
86	734	160	1.47	9331	85.81
87	736	135	1.24	9466	87.05
88	739	130	1.20	9596	88.25
89	742	160	1.47	9756	89.72
90	745	127	1.17	9883	90.89
91	748	122	1.12	10005	92.01
92	751	122	1.12	10127	93.13
93	754	132	1.21	10259	94.34
94	758	105	0.97	10364	95.31
95	762	87	0.80	10451	96.11
96	766	91	0.84	10542	96.95
97	771	82	0.75	10624	97.70
98	776	67	0.62	10691	98.32
99	782	60	0.55	10751	98.87
100	789	40	0.37	10791	99.24
101	797	34	0.31	10825	99.55
102	808	19	0.17	10844	99.72
103	822	18	0.17	10862	99.89
104	847	9	0.08	10871	99.97
105	890	3	0.03	10874	100.00

Dakota STEP CRT Mathematics Raw Score to Scale Score Frequency Table: Grade 8

Raw Score	Scale Score (SS)	Freq	%	Cum Freq	Cum %
1	515	1	0.01	1	0.01
2	540	0	0.00	1	0.01
3	554	0	0.00	1	0.01
4	565	0	0.00	1	0.01
5	573	1	0.01	2	0.02
6	580	2	0.02	4	0.04
7	586	0	0.00	4	0.04
8	592	0	0.00	4	0.04
9	596	1	0.01	5	0.05
10	601	0	0.00	5	0.05
11	604	0	0.00	5	0.05
12	608	2	0.02	7	0.07
13	611	0	0.00	7	0.07
14	615	2	0.02	9	0.08
15	618	4	0.04	13	0.12
16	621	3	0.03	16	0.15
17	623	4	0.04	20	0.19
18	626	8	0.07	28	0.26
19	628	13	0.12	41	0.38
20	631	21	0.20	62	0.58
21	633	24	0.22	86	0.81
22	635	34	0.32	120	1.12
23	638	39	0.37	159	1.49
24	640	54	0.51	213	1.99
25	642	80	0.75	293	2.74
26	644	88	0.82	381	3.57
27	646	92	0.86	473	4.43
28	648	99	0.93	572	5.36
29	649	104	0.97	676	6.33
30	651	119	1.11	795	7.44
31	653	116	1.09	911	8.53
32	655	128	1.20	1039	9.73
33	657	132	1.24	1171	10.97
34	658	128	1.20	1299	12.16
35	660	137	1.28	1436	13.45
36	662	129	1.21	1565	14.65
37	663	125	1.17	1690	15.83
38	665	121	1.13	1811	16.96
39	667	123	1.15	1934	18.11
40	668	135	1.26	2069	19.37
41	670	118	1.10	2187	20.48
42	671	142	1.33	2329	21.81
43	673	126	1.18	2455	22.99
44	675	138	1.29	2593	24.28
45	676	150	1.40	2743	25.69
46	678	164	1.54	2907	27.22
47	679	144	1.35	3051	28.57
48	681	155	1.45	3206	30.02
49	682	147	1.38	3353	31.40
50	684	142	1.33	3495	32.73
51	685	153	1.43	3648	34.16
52	687	151	1.41	3799	35.57
53	688	147	1.38	3946	36.95

Raw Score	Scale Score (SS)	Freq	%	Cum Freq	Cum %
54	690	163	1.53	4109	38.48
55	691	179	1.68	4288	40.15
56	693	142	1.33	4430	41.48
57	695	170	1.59	4600	43.08
58	696	140	1.31	4740	44.39
59	698	156	1.46	4896	45.85
60	699	166	1.55	5062	47.40
61	701	168	1.57	5230	48.97
62	702	205	1.92	5435	50.89
63	704	186	1.74	5621	52.64
64	706	173	1.62	5794	54.26
65	707	174	1.63	5968	55.89
66	709	182	1.70	6150	57.59
67	710	165	1.55	6315	59.13
68	712	170	1.59	6485	60.73
69	714	160	1.50	6645	62.22
70	715	180	1.69	6825	63.91
71	717	168	1.57	6993	65.48
72	719	170	1.59	7163	67.08
73	721	157	1.47	7320	68.55
74	722	158	1.48	7478	70.03
75	724	182	1.70	7660	71.73
76	726	183	1.71	7843	73.44
77	728	150	1.40	7993	74.85
78	730	133	1.25	8126	76.09
79	732	162	1.52	8288	77.61
80	734	168	1.57	8456	79.18
81	736	169	1.58	8625	80.77
82	738	156	1.46	8781	82.23
83	740	159	1.49	8940	83.72
84	743	136	1.27	9076	84.99
85	745	133	1.25	9209	86.23
86	747	146	1.37	9355	87.60
87	750	145	1.36	9500	88.96
88	753	119	1.11	9619	90.07
89	755	122	1.14	9741	91.22
90	758	126	1.18	9867	92.40
91	761	120	1.12	9987	93.52
92	765	104	0.97	10091	94.49
93	768	82	0.77	10173	95.26
94	772	75	0.70	10248	95.96
95	776	90	0.84	10338	96.81
96	780	65	0.61	10403	97.42
97	785	78	0.73	10481	98.15
98	790	52	0.49	10533	98.63
99	796	54	0.51	10587	99.14
100	803	36	0.34	10623	99.48
101	811	22	0.21	10645	99.68
102	822	17	0.16	10662	99.84
103	837	13	0.12	10675	99.96
104	862	3	0.03	10678	99.99
105	884	1	0.01	10679	100.00

Dakota STEP CRT Mathematics Raw Score to Scale Score Frequency Table: Grade 11

Raw Score	Scale Score (SS)	Freq	%	Cum Freq	Cum %
1	537	0	0.00	0	0.00
2	562	1	0.01	1	0.01
3	577	0	0.00	1	0.01
4	587	1	0.01	2	0.02
5	596	0	0.00	2	0.02
6	603	0	0.00	2	0.02
7	609	1	0.01	3	0.03
8	614	0	0.00	3	0.03
9	619	0	0.00	3	0.03
10	623	0	0.00	3	0.03
11	628	1	0.01	4	0.04
12	631	0	0.00	4	0.04
13	635	0	0.00	4	0.04
14	638	1	0.01	5	0.05
15	641	0	0.00	5	0.05
16	644	2	0.02	7	0.07
17	647	3	0.03	10	0.11
18	649	5	0.05	15	0.16
19	652	10	0.11	25	0.27
20	654	18	0.19	43	0.46
21	657	19	0.20	62	0.66
22	659	22	0.24	84	0.90
23	661	43	0.46	127	1.36
24	664	52	0.56	179	1.91
25	666	62	0.66	241	2.58
26	668	78	0.83	319	3.41
27	670	59	0.63	378	4.04
28	672	86	0.92	464	4.96
29	674	85	0.91	549	5.87
30	675	72	0.77	621	6.64
31	677	101	1.08	722	7.72
32	679	101	1.08	823	8.80
33	681	122	1.30	945	10.10
34	683	105	1.12	1050	11.23
35	684	111	1.19	1161	12.41
36	686	99	1.06	1260	13.47
37	688	116	1.24	1376	14.71
38	689	132	1.41	1508	16.12
39	691	116	1.24	1624	17.36
40	693	125	1.34	1749	18.70
41	694	120	1.28	1869	19.98
42	696	116	1.24	1985	21.22
43	698	134	1.43	2119	22.66
44	699	145	1.55	2264	24.21
45	701	136	1.45	2400	25.66
46	702	127	1.36	2527	27.02
47	704	138	1.48	2665	28.49
48	705	144	1.54	2809	30.03
49	707	135	1.44	2944	31.48
50	708	140	1.50	3084	32.97
51	710	139	1.49	3223	34.46
52	711	113	1.21	3336	35.67
53	713	141	1.51	3477	37.18

Raw Score	Scale Score (SS)	Freq	%	Cum Freq	Cum %
54	715	137	1.46	3614	38.64
55	716	139	1.49	3753	40.13
56	718	129	1.38	3882	41.51
57	719	124	1.33	4006	42.83
58	721	152	1.63	4158	44.46
59	722	135	1.44	4293	45.90
60	724	151	1.61	4444	47.51
61	725	116	1.24	4560	48.75
62	727	166	1.77	4726	50.53
63	728	146	1.56	4872	52.09
64	730	123	1.32	4995	53.41
65	732	145	1.55	5140	54.96
66	733	162	1.73	5302	56.69
67	735	131	1.40	5433	58.09
68	736	145	1.55	5578	59.64
69	738	116	1.24	5694	60.88
70	740	157	1.68	5851	62.56
71	742	151	1.61	6002	64.17
72	743	151	1.61	6153	65.79
73	745	139	1.49	6292	67.27
74	747	131	1.40	6423	68.67
75	749	128	1.37	6551	70.04
76	750	138	1.48	6689	71.52
77	752	127	1.36	6816	72.88
78	754	120	1.28	6936	74.16
79	756	123	1.32	7059	75.47
80	758	143	1.53	7202	77.00
81	760	134	1.43	7336	78.43
82	762	118	1.26	7454	79.70
83	764	123	1.32	7577	81.01
84	767	122	1.30	7699	82.32
85	769	134	1.43	7833	83.75
86	771	115	1.23	7948	84.98
87	774	128	1.37	8076	86.35
88	776	108	1.15	8184	87.50
89	779	124	1.33	8308	88.83
90	782	109	1.17	8417	89.99
91	785	89	0.95	8506	90.94
92	788	104	1.11	8610	92.06
93	792	102	1.09	8712	93.15
94	795	103	1.10	8815	94.25
95	799	100	1.07	8915	95.32
96	803	89	0.95	9004	96.27
97	808	73	0.78	9077	97.05
98	813	64	0.68	9141	97.73
99	819	61	0.65	9202	98.39
100	826	52	0.56	9254	98.94
101	834	40	0.43	9294	99.37
102	845	25	0.27	9319	99.64
103	860	18	0.19	9337	99.83
104	885	14	0.15	9351	99.98
105	907	2	0.02	9353	100.00

APPENDIX G: Subgroup Raw Score Analysis Summary

Note that the Subgroups include gender (Male, Female), ethnicity (White, Black, Hispanic, Asian, Native American), IEP status, and LEP status. The statistics shown include: number of students tested, number of students with valid scores, number of Items, raw score (RS) mean, RS standard deviation (SD), coefficient alpha (RS reliability), and RS classical test theory (CTT) standard error of measurement (SEM).

Subgroup Raw Score Summary for DSTEP CRT Reading

Grade	Group	No. of Students Tested	No. of Students Tested w/ Valid Scores	No. of Items	RS Mean	RS SD	Alpha (Reliability)	RS SEM
3	Gender							
3	Female	4872	4859	48	33.53	8.34	0.89	2.78
3	Male	5137	5118	48	31.94	8.54	0.89	2.86
3	Race							
3	White	1983	1980	48	33.15	8.34	0.89	2.80
3	Black	85	83	48	28.11	9.32	0.90	2.97
3	Hispanic	89	89	48	28.25	7.23	0.82	3.05
3	Asian	50	50	48	35.56	6.90	0.84	2.73
	Native American							
3	Native American	505	501	48	25.00	8.55	0.87	3.07
3	LEP Accommodation							
3	LEP	287	275	48	22.42	7.48	0.83	3.12
3	Non-LEP	9736	9716	48	33.00	8.33	0.89	2.81
3	IEP Accommodation							
3	IEP	922	920	48	24.28	8.60	0.87	3.08
3	Non-IEP	9101	9071	48	33.56	7.99	0.88	2.79
3	Total	10023	9991	48	32.71	8.49	0.89	2.82
4	Gender							
4	Female	4862	4850	51	36.49	8.23	0.88	2.82
4	Male	5225	5201	51	35.19	8.96	0.90	2.89
4	Race							
4	White	2026	2023	51	36.47	8.34	0.88	2.83
4	Black	99	95	51	32.02	8.09	0.86	3.04
4	Hispanic	90	90	51	32.44	8.87	0.88	3.02
4	Asian	55	55	51	35.20	8.74	0.89	2.90
	Native American							
4	Native American	425	422	51	27.05	8.54	0.86	3.16
4	LEP Accommodation							
4	LEP	309	297	51	24.97	8.28	0.85	3.19
4	Non-LEP	9791	9766	51	36.13	8.44	0.89	2.85
4	IEP Accommodation							
4	IEP	999	991	51	26.73	8.99	0.88	3.17
4	Non-IEP	9101	9072	51	36.80	8.01	0.88	2.82
4	Total	10100	10063	51	35.80	8.65	0.89	2.86
5	Gender							
5	Female	4984	4976	56	36.85	9.29	0.89	3.12
5	Male	5324	5315	56	35.72	9.97	0.90	3.17
5	Race							
5	White	2091	2091	56	37.55	9.32	0.89	3.11
5	Black	99	97	56	32.37	9.69	0.88	3.29
5	Hispanic	96	96	56	33.09	8.69	0.86	3.29

Grade	Group	No. of students tested	No. of students tested w/ Valid score	No. of Items	RS mean	RS SD	Alpha (Reliability)	RS SEM
5	Asian Native	57	57	56	36.05	9.01	0.87	3.19
5	American	552	549	56	26.09	9.10	0.86	3.40
5	LEP Accommodation							
5	LEP	232	223	56	23.98	7.81	0.81	3.42
5	Non-LEP	10145	10137	56	36.53	9.52	0.89	3.14
5	IEP Accommodation							
5	IEP	941	941	56	26.05	9.05	0.86	3.41
5	Non-IEP	9436	9419	56	37.28	9.11	0.88	3.12
5	Total	10377	10360	56	36.26	9.66	0.89	3.15
6	Gender							
6	Female	5107	5091	56	36.04	9.75	0.90	3.09
6	Male	5429	5420	56	34.48	10.55	0.91	3.16
6	Race							
6	White	1970	1970	56	36.69	9.84	0.90	3.08
6	Black	87	87	56	31.80	10.05	0.89	3.29
6	Hispanic	72	72	56	31.15	9.75	0.89	3.28
6	Asian Native	51	51	56	34.92	11.50	0.93	3.14
6	American	517	516	56	24.89	9.43	0.87	3.38
6	LEP Accommodation							
6	LEP	243	228	56	21.22	7.67	0.80	3.43
6	Non-LEP	10310	10300	56	35.54	10.03	0.90	3.12
6	IEP Accommodation							
6	IEP	927	924	56	23.04	8.60	0.84	3.42
6	Non-IEP	9626	9604	56	36.40	9.56	0.90	3.10
6	Total	10553	10528	56	35.23	10.20	0.91	3.13
7	Gender							
7	Female	5377	5361	56	37.13	9.23	0.88	3.14
7	Male	5503	5481	56	34.96	10.18	0.90	3.19
7	Race							
7	White	2065	2064	56	37.50	9.49	0.89	3.11
7	Black	102	102	56	33.05	9.07	0.87	3.28
7	Hispanic	101	100	56	31.74	9.99	0.89	3.30
7	Asian Native	51	51	56	39.00	7.81	0.84	3.11
7	American	689	682	56	26.65	9.30	0.87	3.37
7	LEP Accommodation							
7	LEP	216	202	56	22.63	8.88	0.86	3.38
7	Non-LEP	10683	10659	56	36.27	9.62	0.89	3.17
7	IEP Accommodation							
7	IEP	983	978	56	24.13	8.47	0.84	3.42
7	Non-IEP	9916	9883	56	37.19	9.10	0.88	3.14
7	Total	10899	10861	56	36.02	9.78	0.89	3.17

Grade	Group	No. of students tested	No. of students tested w/ Valid score	No. of Items	RS mean	RS SD	Alpha (Reliability)	RS SEM
8	Gender							
8	Female	5242	5234	49	33.47	7.61	0.85	2.93
8	Male	5439	5430	49	31.43	8.43	0.87	3.00
8	Race							
8	White	2098	2097	49	33.47	7.83	0.86	2.92
8	Black	81	81	49	30.35	7.48	0.83	3.07
8	Hispanic	83	83	49	28.12	7.97	0.85	3.12
8	Asian	51	51	49	30.59	8.04	0.86	3.06
	Native							
8	American	660	657	49	24.48	7.71	0.83	3.18
8	LEP Accommodation							
8	LEP	215	207	49	21.57	7.34	0.81	3.20
8	Non-LEP	10479	10469	49	32.64	7.97	0.86	2.96
8	IEP Accommodation							
8	IEP	905	904	49	22.81	6.98	0.78	3.24
8	Non-IEP	9789	9772	49	33.31	7.61	0.85	2.94
8	Total	10694	10676	49	32.42	8.11	0.87	2.97
11	Gender							
11	Female	4632	4621	40	28.33	6.37	0.84	2.53
11	Male	4718	4708	40	27.09	7.17	0.87	2.59
11	Race							
11	White	1899	1898	40	28.34	7.04	0.87	2.53
11	Black	55	54	40	25.20	7.48	0.87	2.68
11	Hispanic	39	39	40	23.13	7.34	0.85	2.80
11	Asian	47	47	40	26.23	7.89	0.89	2.61
	Native							
11	American	429	425	40	21.31	6.99	0.84	2.81
11	LEP Accommodation							
11	LEP	67	64	40	17.39	5.52	0.73	2.87
11	Non-LEP	9306	9288	40	27.77	6.77	0.86	2.56
11	IEP Accommodation							
11	IEP	494	491	40	17.01	6.12	0.78	2.89
11	Non-IEP	8879	8861	40	28.29	6.34	0.84	2.54
11	Total	9373	9352	40	27.70	6.81	0.86	2.57

Subgroup Raw Score Summary for DSTEP CRT Mathematics

Grade	Group	No. of Students Tested	No. of Students Tested w/ Valid Scores	No. of Items	RS Mean	RS SD	Alpha (Reliability)	RS SEM
3	Gender							
3	Female	4872	4868	105	71.98	18.40	0.95	4.13
3	Male	5137	5128	105	73.02	18.77	0.95	4.09
3	Race							
3	White	1983	1982	105	73.26	18.51	0.95	4.08
3	Black	85	85	105	60.60	20.39	0.95	4.42
3	Hispanic	89	89	105	61.63	15.70	0.92	4.49
3	Asian	50	50	105	78.54	15.62	0.94	3.89
3	Native American	505	502	105	56.86	18.31	0.94	4.51
3	LEP Accommodation							
3	LEP	289	289	105	50.47	17.71	0.93	4.60
3	Non-LEP	9734	9721	105	73.15	18.24	0.95	4.10
3	IEP Accommodation							
3	IEP	921	920	105	56.54	19.55	0.95	4.49
3	Non-IEP	9102	9090	105	74.11	17.74	0.95	4.07
3	Total	10023	10010	105	72.49	18.62	0.95	4.11
4	Gender							
4	Female	4862	4855	105	65.93	17.92	0.94	4.27
4	Male	5225	5218	105	67.61	18.79	0.95	4.22
4	Race							
4	White	2026	2023	105	68.43	17.68	0.94	4.21
4	Black	99	99	105	55.18	17.57	0.93	4.48
4	Hispanic	90	90	105	54.13	17.61	0.94	4.48
4	Asian	55	55	105	61.85	18.51	0.94	4.35
4	Native American	425	424	105	48.16	16.29	0.92	4.55
4	LEP Accommodation							
4	LEP	307	307	105	46.95	15.66	0.91	4.59
4	Non-LEP	9793	9779	105	67.39	18.15	0.95	4.23
4	IEP Accommodation							
4	IEP	999	995	105	49.70	17.13	0.93	4.54
4	Non-IEP	9101	9091	105	68.64	17.57	0.94	4.21
4	Total	10100	10086	105	66.77	18.42	0.95	4.25
5	Gender							
5	Female	4984	4981	105	64.86	18.40	0.94	4.33
5	Male	5324	5318	105	66.25	19.48	0.95	4.30
5	Race							
5	White	2091	2091	105	68.77	18.51	0.95	4.22
5	Black	99	99	105	56.31	18.09	0.94	4.54
5	Hispanic	96	96	105	57.01	18.37	0.94	4.52

Grade	Group	No. of students tested	No. of students tested w/ Valid score	No. of Items	RS mean	RS SD	Alpha (Reliability)	RS SEM
5	Asian Native	57	57	105	66.95	19.95	0.96	4.21
5	American	552	548	105	44.21	15.97	0.92	4.64
5	LEP Accommodation							
5	LEP	233	232	105	43.85	15.62	0.91	4.66
5	Non-LEP	10144	10136	105	66.08	18.75	0.95	4.31
5	IEP Accommodation							
5	IEP	940	940	105	47.39	17.14	0.93	4.63
5	Non-IEP	9437	9428	105	67.39	18.17	0.94	4.28
5	Total	10377	10368	105	65.58	18.97	0.95	4.32
6	Gender							
6	Female	5107	5100	105	68.95	18.67	0.95	4.20
6	Male	5429	5423	105	69.32	20.09	0.96	4.18
6	Race							
6	White	1970	1969	105	71.87	18.52	0.95	4.12
6	Black	87	87	105	60.95	18.25	0.94	4.44
6	Hispanic	72	72	105	60.75	17.34	0.93	4.46
6	Asian Native	51	51	105	67.84	19.84	0.96	4.20
6	American	517	514	105	47.71	17.70	0.93	4.55
6	LEP Accommodation							
6	LEP	271	270	105	45.40	18.57	0.94	4.55
6	Non-LEP	10282	10269	105	69.75	19.06	0.95	4.18
6	IEP Accommodation							
6	IEP	929	925	105	47.08	16.92	0.93	4.59
6	Non-IEP	9624	9614	105	71.24	18.31	0.95	4.15
6	Total	10553	10539	105	69.12	19.43	0.95	4.19
7	Gender							
7	Female	5377	5366	105	61.47	20.50	0.95	4.37
7	Male	5503	5489	105	62.51	21.53	0.96	4.35
7	Race							
7	White	2065	2063	105	65.33	20.28	0.95	4.30
7	Black	102	102	105	54.03	18.55	0.94	4.51
7	Hispanic	101	100	105	51.92	18.42	0.94	4.54
7	Asian Native	51	51	105	67.43	19.22	0.95	4.30
7	American	689	681	105	39.28	14.72	0.90	4.56
7	LEP Accommodation							
7	LEP	216	215	105	35.53	14.90	0.91	4.51
7	Non-LEP	10683	10659	105	62.50	20.80	0.96	4.36
7	IEP Accommodation							
7	IEP	982	976	105	39.03	14.86	0.90	4.59
7	Non-IEP	9917	9898	105	64.22	20.18	0.95	4.34
7	Total	10899	10874	105	61.96	21.03	0.96	4.36

Grade	Group	No. of students tested	No. of students tested w/ Valid score	No. of Items	RS mean	RS SD	Alpha (Reliability)	RS SEM
8	Gender							
8	Female	5242	5237	105	61.48	19.62	0.95	4.38
8	Male	5439	5430	105	61.03	21.04	0.96	4.38
8	Race							
8	White	2098	2097	105	63.06	20.18	0.95	4.35
8	Black	81	81	105	51.38	17.84	0.93	4.57
8	Hispanic	83	83	105	49.95	18.99	0.94	4.54
8	Asian	51	51	105	59.80	21.91	0.96	4.42
	Native							
8	American	660	655	105	39.52	14.13	0.89	4.63
8	LEP Accommodation							
8	LEP	215	215	105	35.60	14.30	0.90	4.54
8	Non-LEP	10479	10464	105	61.76	20.13	0.95	4.38
8	IEP Accommodation							
8	IEP	906	904	105	38.87	13.95	0.89	4.63
8	Non-IEP	9788	9775	105	63.30	19.61	0.95	4.36
8	Total	10694	10679	105	61.23	20.37	0.95	4.39
11	Gender							
11	Female	4632	4624	105	61.75	19.92	0.95	4.38
11	Male	4718	4706	105	62.39	21.75	0.96	4.35
11	Race							
11	White	1899	1898	105	63.37	21.04	0.96	4.32
11	Black	55	55	105	55.65	19.58	0.95	4.45
11	Hispanic	39	39	105	48.38	17.41	0.93	4.60
11	Asian	47	47	105	63.21	22.34	0.96	4.31
	Native							
11	American	429	423	105	38.70	14.71	0.90	4.57
11	LEP Accommodation							
11	LEP	67	66	105	35.85	11.66	0.84	4.59
11	Non-LEP	9306	9287	105	62.22	20.81	0.96	4.37
11	IEP Accommodation							
11	IEP	492	485	105	34.49	12.11	0.86	4.54
11	Non-IEP	8881	8868	105	63.54	20.19	0.95	4.35
11	Total	9373	9353	105	62.03	20.87	0.96	4.37

APPENDIX H: Summary of Differential Item Functioning (DIF)

Results

Note that the DIF classifications have three categories: “A” represents no or negligible DIF, “B” represents intermediate DIF, and “C” represents large DIF. For these results the Mantel-Haenszel approach for DIF was used and the classifications of A, B, and C were based on the DIF classification rules commonly referred to as the “ETS DIF Classification Rules”². The DIF analysis was conducted for Male vs Female, White vs Native American, and Non-IEP vs IEP group comparisons. Other subgroups were not included due to an insufficient number of examinees (see Appendix G for the number of students in various subgroups).

² Zieky, M. (1993). Practical questions in the use of DIF statistics in item development. In P.W. Holland & H. Wainer (Eds.), *Differential item functioning: Theory and practice*. (pp.337-364). Hillsdale, NJ: Lawrence Erlbaum.

Summary of Differential Item Functioning (DIF) Results for DSTEP CRT Reading

Grade	Reference Group	Focus Group	No. of Students		DIF Classification		
			Reference Group	Focal Group	A	B	C
3	Male	Female	5118	4859	48	0	0
3	White	Native American	1980	501	44	4	0
3	Non-IEP	W/IEP	9071	920	40	6	2
4	Male	Female	5201	4850	49	2	0
4	White	Native American	2023	422	48	3	0
4	Non-IEP	W/IEP	9072	991	41	6	4
5	Male	Female	5315	4976	54	1	1
5	White	Native American	2091	549	53	3	0
5	Non-IEP	W/IEP	9419	941	49	5	2
6	Male	Female	5420	5091	54	2	0
6	White	Native American	1970	516	48	7	1
6	Non-IEP	W/IEP	9604	924	54	2	0
7	Male	Female	5481	5361	53	2	1
7	White	Native American	2064	682	50	4	2
7	Non-IEP	W/IEP	9883	978	50	4	2
8	Male	Female	5430	5234	46	3	0
8	White	Native American	2097	657	44	4	1
8	Non-IEP	W/IEP	9772	904	45	1	3
11	Male	Female	4708	4621	32	7	1
11	White	Native American	1898	425	29	8	3
11	Non-IEP	W/IEP	8861	491	22	13	5

Summary of Differential Item Functioning (DIF) Results for DSTEP CRT Mathematics

Grade	Reference Group		No. of Students		DIF Classification		
	Grade	Reference Group	Focus Group	Reference Group	Focus Group	A	B
3	Male	Female	5128	4868	104	1	0
3	White	Native American	1982	502	101	2	2
3	Non-IEP	W/IEP	9090	920	91	11	3
4	Male	Female	5218	4855	102	3	0
4	White	Native American	2023	424	94	7	4
4	Non-IEP	W/IEP	9091	995	100	4	1
5	Male	Female	5318	4981	101	3	1
5	White	Native American	2091	548	90	9	6
5	Non-IEP	W/IEP	9428	940	95	8	2
6	Male	Female	5423	5100	98	7	0
6	White	Native American	1969	514	88	13	4
6	Non-IEP	W/IEP	9614	925	95	8	2
7	Male	Female	5489	5366	102	2	1
7	White	Native American	2063	681	96	6	3
7	Non-IEP	W/IEP	9898	976	99	5	1
8	Male	Female	5430	5237	98	7	0
8	White	Native American	2097	655	96	8	1
8	Non-IEP	W/IEP	9775	904	102	3	0
11	Male	Female	4706	4624	92	11	2
11	White	Native American	1898	423	95	9	1
11	Non-IEP	W/IEP	8868	485	86	16	3

APPENDIX I: Differential Item Functioning (DIF) Classifications for Items

Note that the DIF classifications have three categories: “A” represents no or negligible DIF, “B” represents intermediate DIF, and “C” represents large DIF. For these results the Mantel-Haenszel approach for DIF was used and the classifications of A, B, and C were based on the DIF classification rules commonly referred to as the “ETS DIF Classification Rules”³. The symbols “>” and “<” represent the direction of DIF; “>” means the item favors the reference group while “<” means the item favors the focal group. Items with the classification of “A” do not show the direction because items with classifications of B or C are the ones of concern. “Item No.” is the item sequence number in the test booklet. The DIF analysis was conducted for Male vs Female, White vs Native American, and Non-IEP vs IEP group comparisons. Other subgroups were not included due to an insufficient number of examinees (see Appendix G for the number of students in various subgroups).

³ Zieky, M. (1993). Practical questions in the use of DIF statistics in item development. In P.W. Holland & H. Wainer (Eds.), *Differential item functioning: Theory and practice*. (pp.337-364). Hillsdale, NJ: Lawrence Erlbaum.

DIF Classifications for DSTEP CRT Reading Grade 3

Item No.	Type	Total N	No. of Male	No. of Female	DIF M/F	No. Of White	No. of Native American	DIF W/I	No. of Non-IEP	No. of IEP	DIF N/IEP
2	MC	9991	5118	4859	A	1980	501	A	9071	920	A
3	MC	9991	5118	4859	A	1980	501	>B	9071	920	A
4	MC	9991	5118	4859	A	1980	501	A	9071	920	>B
5	MC	9991	5118	4859	A	1980	501	A	9071	920	A
6	MC	9991	5118	4859	A	1980	501	A	9071	920	A
7	MC	9991	5118	4859	A	1980	501	A	9071	920	A
4	MC	9991	5118	4859	A	1980	501	A	9071	920	>C
7	MC	9991	5118	4859	A	1980	501	A	9071	920	A
9	MC	9991	5118	4859	A	1980	501	A	9071	920	A
11	MC	9991	5118	4859	A	1980	501	A	9071	920	A
12	MC	9991	5118	4859	A	1980	501	A	9071	920	A
13	MC	9991	5118	4859	A	1980	501	A	9071	920	>C
16	MC	9991	5118	4859	A	1980	501	>B	9071	920	A
20	MC	9991	5118	4859	A	1980	501	A	9071	920	>B
22	MC	9991	5118	4859	A	1980	501	A	9071	920	A
25	MC	9991	5118	4859	A	1980	501	A	9071	920	A
31	MC	9991	5118	4859	A	1980	501	A	9071	920	A
6	MC	9991	5118	4859	A	1980	501	>B	9071	920	A
32	MC	9991	5118	4859	A	1980	501	>B	9071	920	>B
33	MC	9991	5118	4859	A	1980	501	A	9071	920	>B
34	MC	9991	5118	4859	A	1980	501	A	9071	920	A
35	MC	9991	5118	4859	A	1980	501	A	9071	920	A
36	MC	9991	5118	4859	A	1980	501	A	9071	920	A
37	MC	9991	5118	4859	A	1980	501	A	9071	920	A
38	MC	9991	5118	4859	A	1980	501	A	9071	920	>B
39	MC	9991	5118	4859	A	1980	501	A	9071	920	A
40	MC	9991	5118	4859	A	1980	501	A	9071	920	A
41	MC	9991	5118	4859	A	1980	501	A	9071	920	A
42	MC	9991	5118	4859	A	1980	501	A	9071	920	A
43	MC	9991	5118	4859	A	1980	501	A	9071	920	A
44	MC	9991	5118	4859	A	1980	501	A	9071	920	A
45	MC	9991	5118	4859	A	1980	501	A	9071	920	A
46	MC	9991	5118	4859	A	1980	501	A	9071	920	A
47	MC	9991	5118	4859	A	1980	501	A	9071	920	A
48	MC	9991	5118	4859	A	1980	501	A	9071	920	A
49	MC	9991	5118	4859	A	1980	501	A	9071	920	A
50	MC	9991	5118	4859	A	1980	501	A	9071	920	A
51	MC	9991	5118	4859	A	1980	501	A	9071	920	A
52	MC	9991	5118	4859	A	1980	501	A	9071	920	>B
53	MC	9991	5118	4859	A	1980	501	A	9071	920	A
54	MC	9991	5118	4859	A	1980	501	A	9071	920	A
55	MC	9991	5118	4859	A	1980	501	A	9071	920	A
56	MC	9991	5118	4859	A	1980	501	A	9071	920	A
57	MC	9991	5118	4859	A	1980	501	A	9071	920	A
58	MC	9991	5118	4859	A	1980	501	A	9071	920	A

Item No.	Type	Total N	No. of Male	No. of Female	DIF M/F	No. Of White	No. of Native American	DIF W/I	No. of Non- IEP	No. of IEP	DIF N/IEP
59	MC	9991	5118	4859	A	1980	501	A	9071	920	A
60	MC	9991	5118	4859	A	1980	501	A	9071	920	A
61	MC	9991	5118	4859	A	1980	501	A	9071	920	A

DIF Classifications for DSTEP CRT Reading Grade 4

Item No.	Type	Total N	No. of Male	No. of Female	DIF M/F	No. Of White	No. of Native American	DIF W/I	No. of Non-IEP	No. of IEP	DIF N/IEP
3	MC	10063	5201	4850	A	2023	422	A	9072	991	>C
4	MC	10063	5201	4850	A	2023	422	A	9072	991	A
5	MC	10063	5201	4850	A	2023	422	<B	9072	991	>B
9	MC	10063	5201	4850	A	2023	422	A	9072	991	A
10	MC	10063	5201	4850	A	2023	422	A	9072	991	>B
11	MC	10063	5201	4850	A	2023	422	A	9072	991	A
6	MC	10063	5201	4850	A	2023	422	A	9072	991	>C
7	MC	10063	5201	4850	A	2023	422	A	9072	991	A
9	MC	10063	5201	4850	A	2023	422	A	9072	991	A
10	MC	10063	5201	4850	A	2023	422	A	9072	991	A
18	MC	10063	5201	4850	A	2023	422	>B	9072	991	>B
20	MC	10063	5201	4850	A	2023	422	A	9072	991	A
21	MC	10063	5201	4850	A	2023	422	A	9072	991	A
24	MC	10063	5201	4850	A	2023	422	A	9072	991	>C
25	MC	10063	5201	4850	A	2023	422	A	9072	991	A
28	MC	10063	5201	4850	<B	2023	422	A	9072	991	>C
32	MC	10063	5201	4850	A	2023	422	A	9072	991	A
56	MC	10063	5201	4850	A	2023	422	A	9072	991	A
1	MC	10063	5201	4850	A	2023	422	A	9072	991	>B
2	MC	10063	5201	4850	A	2023	422	A	9072	991	>B
3	MC	10063	5201	4850	A	2023	422	A	9072	991	A
4	MC	10063	5201	4850	A	2023	422	A	9072	991	A
5	MC	10063	5201	4850	A	2023	422	A	9072	991	A
11	MC	10063	5201	4850	A	2023	422	A	9072	991	A
12	MC	10063	5201	4850	A	2023	422	A	9072	991	A
13	MC	10063	5201	4850	A	2023	422	A	9072	991	A
14	MC	10063	5201	4850	A	2023	422	A	9072	991	A
15	MC	10063	5201	4850	A	2023	422	A	9072	991	A
16	MC	10063	5201	4850	A	2023	422	A	9072	991	A
17	MC	10063	5201	4850	A	2023	422	A	9072	991	A
23	MC	10063	5201	4850	A	2023	422	A	9072	991	A
29	MC	10063	5201	4850	A	2023	422	A	9072	991	A
30	MC	10063	5201	4850	A	2023	422	A	9072	991	A
36	MC	10063	5201	4850	A	2023	422	>B	9072	991	A
37	MC	10063	5201	4850	A	2023	422	A	9072	991	A
38	MC	10063	5201	4850	A	2023	422	A	9072	991	A
39	MC	10063	5201	4850	A	2023	422	A	9072	991	A
40	MC	10063	5201	4850	A	2023	422	A	9072	991	A
41	MC	10063	5201	4850	A	2023	422	A	9072	991	A
42	MC	10063	5201	4850	>B	2023	422	A	9072	991	A
48	MC	10063	5201	4850	A	2023	422	A	9072	991	A
49	MC	10063	5201	4850	A	2023	422	A	9072	991	A
50	MC	10063	5201	4850	A	2023	422	A	9072	991	A
51	MC	10063	5201	4850	A	2023	422	A	9072	991	>B
57	MC	10063	5201	4850	A	2023	422	A	9072	991	A

Item No.	Type	Total N	No. of Male	No. of Female	DIF M/F	No. Of White	No. of Native American	DIF W/I	No. of Non- IEP	No. of IEP	DIF N/IEP
58	MC	10063	5201	4850	A	2023	422	A	9072	991	A
59	MC	10063	5201	4850	A	2023	422	A	9072	991	A
60	MC	10063	5201	4850	A	2023	422	A	9072	991	A
61	MC	10063	5201	4850	A	2023	422	A	9072	991	A
62	MC	10063	5201	4850	A	2023	422	A	9072	991	A
63	MC	10063	5201	4850	A	2023	422	A	9072	991	A

DIF Classifications for DSTEP CRT Reading Grade 5

Item No.	Type	Total N	No. of Male	No. of Female	DIF M/F	No. Of White	No. of Native American	DIF W/I	No. of Non-IEP	No. of IEP	DIF N/IEP
2	MC	10360	5315	4976	A	2091	549	A	9419	941	>C
3	MC	10360	5315	4976	A	2091	549	A	9419	941	A
5	MC	10360	5315	4976	A	2091	549	A	9419	941	>B
6	MC	10360	5315	4976	A	2091	549	A	9419	941	>B
11	MC	10360	5315	4976	A	2091	549	A	9419	941	A
13	MC	10360	5315	4976	A	2091	549	A	9419	941	A
14	MC	10360	5315	4976	A	2091	549	A	9419	941	A
15	MC	10360	5315	4976	A	2091	549	A	9419	941	A
24	MC	10360	5315	4976	A	2091	549	A	9419	941	A
25	MC	10360	5315	4976	A	2091	549	A	9419	941	A
26	MC	10360	5315	4976	A	2091	549	A	9419	941	A
27	MC	10360	5315	4976	A	2091	549	A	9419	941	A
37	MC	10360	5315	4976	A	2091	549	A	9419	941	>B
41	MC	10360	5315	4976	A	2091	549	A	9419	941	A
53	MC	10360	5315	4976	A	2091	549	A	9419	941	>B
55	MC	10360	5315	4976	A	2091	549	>B	9419	941	A
56	MC	10360	5315	4976	A	2091	549	A	9419	941	A
65	MC	10360	5315	4976	A	2091	549	A	9419	941	A
66	MC	10360	5315	4976	<B	2091	549	A	9419	941	A
4	MC	10360	5315	4976	A	2091	549	A	9419	941	A
7	MC	10360	5315	4976	A	2091	549	A	9419	941	A
8	MC	10360	5315	4976	A	2091	549	A	9419	941	A
9	MC	10360	5315	4976	A	2091	549	A	9419	941	>B
10	MC	10360	5315	4976	A	2091	549	A	9419	941	A
16	MC	10360	5315	4976	A	2091	549	A	9419	941	A
17	MC	10360	5315	4976	A	2091	549	>B	9419	941	A
18	MC	10360	5315	4976	A	2091	549	A	9419	941	>C
19	MC	10360	5315	4976	A	2091	549	A	9419	941	A
20	MC	10360	5315	4976	A	2091	549	A	9419	941	A
21	MC	10360	5315	4976	<C	2091	549	A	9419	941	A
22	MC	10360	5315	4976	A	2091	549	A	9419	941	A
23	MC	10360	5315	4976	A	2091	549	A	9419	941	A
29	MC	10360	5315	4976	A	2091	549	A	9419	941	A
30	MC	10360	5315	4976	A	2091	549	A	9419	941	A
31	MC	10360	5315	4976	A	2091	549	A	9419	941	A
32	MC	10360	5315	4976	A	2091	549	A	9419	941	A
33	MC	10360	5315	4976	A	2091	549	A	9419	941	A
34	MC	10360	5315	4976	A	2091	549	A	9419	941	A
35	MC	10360	5315	4976	A	2091	549	A	9419	941	A
36	MC	10360	5315	4976	A	2091	549	A	9419	941	A
42	MC	10360	5315	4976	A	2091	549	A	9419	941	A
43	MC	10360	5315	4976	A	2091	549	A	9419	941	A
44	MC	10360	5315	4976	A	2091	549	>B	9419	941	A
45	MC	10360	5315	4976	A	2091	549	A	9419	941	A
46	MC	10360	5315	4976	A	2091	549	A	9419	941	A

Item No.	Type	Total N	No. of Male	No. of Female	DIF M/F	No. Of White	No. of Native American	DIF W/I	No. of Non-IEP	No. of IEP	DIF N/IEP
47	MC	10360	5315	4976	A	2091	549	A	9419	941	A
48	MC	10360	5315	4976	A	2091	549	A	9419	941	A
49	MC	10360	5315	4976	A	2091	549	A	9419	941	A
50	MC	10360	5315	4976	A	2091	549	A	9419	941	A
51	MC	10360	5315	4976	A	2091	549	A	9419	941	A
52	MC	10360	5315	4976	A	2091	549	A	9419	941	A
58	MC	10360	5315	4976	A	2091	549	A	9419	941	A
59	MC	10360	5315	4976	A	2091	549	A	9419	941	A
60	MC	10360	5315	4976	A	2091	549	A	9419	941	A
63	MC	10360	5315	4976	A	2091	549	A	9419	941	A
67	MC	10360	5315	4976	A	2091	549	A	9419	941	A

DIF Classifications for DSTEP CRT Reading Grade 6

Item No.	Type	Total N	No. of Male	No. of Female	DIF M/F	No. Of White	No. of Native American	DIF W/I	No. of Non-IEP	No. of IEP	DIF N/IEP
1	MC	10528	5420	5091	A	1970	516	A	9604	924	A
3	MC	10528	5420	5091	A	1970	516	A	9604	924	A
4	MC	10528	5420	5091	A	1970	516	A	9604	924	A
5	MC	10528	5420	5091	A	1970	516	A	9604	924	A
12	MC	10528	5420	5091	A	1970	516	>B	9604	924	A
13	MC	10528	5420	5091	>B	1970	516	A	9604	924	A
21	MC	10528	5420	5091	A	1970	516	A	9604	924	A
22	MC	10528	5420	5091	A	1970	516	A	9604	924	A
23	MC	10528	5420	5091	A	1970	516	A	9604	924	>B
31	MC	10528	5420	5091	A	1970	516	A	9604	924	A
33	MC	10528	5420	5091	A	1970	516	A	9604	924	A
65	MC	10528	5420	5091	A	1970	516	A	9604	924	A
66	MC	10528	5420	5091	A	1970	516	A	9604	924	A
6	MC	10528	5420	5091	A	1970	516	A	9604	924	A
7	MC	10528	5420	5091	A	1970	516	A	9604	924	>B
8	MC	10528	5420	5091	A	1970	516	A	9604	924	A
9	MC	10528	5420	5091	A	1970	516	A	9604	924	A
15	MC	10528	5420	5091	A	1970	516	>B	9604	924	A
16	MC	10528	5420	5091	A	1970	516	>B	9604	924	A
17	MC	10528	5420	5091	A	1970	516	A	9604	924	A
18	MC	10528	5420	5091	A	1970	516	A	9604	924	A
19	MC	10528	5420	5091	A	1970	516	>B	9604	924	A
25	MC	10528	5420	5091	A	1970	516	A	9604	924	A
26	MC	10528	5420	5091	<B	1970	516	A	9604	924	A
27	MC	10528	5420	5091	A	1970	516	>B	9604	924	A
28	MC	10528	5420	5091	A	1970	516	A	9604	924	A
29	MC	10528	5420	5091	A	1970	516	A	9604	924	A
30	MC	10528	5420	5091	A	1970	516	A	9604	924	A
36	MC	10528	5420	5091	A	1970	516	A	9604	924	A
37	MC	10528	5420	5091	A	1970	516	A	9604	924	A
38	MC	10528	5420	5091	A	1970	516	A	9604	924	A
39	MC	10528	5420	5091	A	1970	516	A	9604	924	A
45	MC	10528	5420	5091	A	1970	516	A	9604	924	A
46	MC	10528	5420	5091	A	1970	516	A	9604	924	A
47	MC	10528	5420	5091	A	1970	516	A	9604	924	A
48	MC	10528	5420	5091	A	1970	516	A	9604	924	A
49	MC	10528	5420	5091	A	1970	516	>B	9604	924	A
50	MC	10528	5420	5091	A	1970	516	A	9604	924	A
51	MC	10528	5420	5091	A	1970	516	A	9604	924	A
52	MC	10528	5420	5091	A	1970	516	A	9604	924	A
53	MC	10528	5420	5091	A	1970	516	A	9604	924	A
54	MC	10528	5420	5091	A	1970	516	A	9604	924	A
55	MC	10528	5420	5091	A	1970	516	A	9604	924	A
56	MC	10528	5420	5091	A	1970	516	A	9604	924	A

Item No.	Type	Total N	No. of Male	No. of Female	DIF M/F	No. Of White	No. of Native American	DIF W/I	No. of Non-IEP	No. of IEP	DIF N/IEP
57	MC	10528	5420	5091	A	1970	516	A	9604	924	A
58	MC	10528	5420	5091	A	1970	516	A	9604	924	A
59	MC	10528	5420	5091	A	1970	516	A	9604	924	A
60	MC	10528	5420	5091	A	1970	516	A	9604	924	A
61	MC	10528	5420	5091	A	1970	516	A	9604	924	A
67	MC	10528	5420	5091	A	1970	516	A	9604	924	A
68	MC	10528	5420	5091	A	1970	516	A	9604	924	A
69	MC	10528	5420	5091	A	1970	516	>C	9604	924	A
70	MC	10528	5420	5091	A	1970	516	A	9604	924	A
71	MC	10528	5420	5091	A	1970	516	A	9604	924	A
72	MC	10528	5420	5091	A	1970	516	>B	9604	924	A
73	MC	10528	5420	5091	A	1970	516	A	9604	924	A

DIF Classifications for DSTEP CRT Reading Grade 7

Item No.	Type	Total N	No. of Male	No. of Female	DIF M/F	No. Of White	No. of Native American	DIF W/I	No. of Non-IEP	No. of IEP	DIF N/IEP
1	MC	10861	5481	5361	<B	2064	682	A	9883	978	>C
2	MC	10861	5481	5361	A	2064	682	A	9883	978	>B
3	MC	10861	5481	5361	A	2064	682	A	9883	978	A
4	MC	10861	5481	5361	A	2064	682	>B	9883	978	A
5	MC	10861	5481	5361	>B	2064	682	A	9883	978	A
10	MC	10861	5481	5361	A	2064	682	A	9883	978	A
12	MC	10861	5481	5361	A	2064	682	A	9883	978	A
13	MC	10861	5481	5361	A	2064	682	>C	9883	978	>B
18	MC	10861	5481	5361	A	2064	682	A	9883	978	A
19	MC	10861	5481	5361	A	2064	682	A	9883	978	>B
20	MC	10861	5481	5361	A	2064	682	A	9883	978	A
21	MC	10861	5481	5361	A	2064	682	A	9883	978	A
29	MC	10861	5481	5361	A	2064	682	A	9883	978	>B
30	MC	10861	5481	5361	A	2064	682	>B	9883	978	A
31	MC	10861	5481	5361	A	2064	682	A	9883	978	A
32	MC	10861	5481	5361	A	2064	682	A	9883	978	A
36	MC	10861	5481	5361	A	2064	682	A	9883	978	A
39	MC	10861	5481	5361	A	2064	682	A	9883	978	A
55	MC	10861	5481	5361	A	2064	682	A	9883	978	A
56	MC	10861	5481	5361	A	2064	682	A	9883	978	A
58	MC	10861	5481	5361	A	2064	682	A	9883	978	A
60	MC	10861	5481	5361	A	2064	682	A	9883	978	A
6	MC	10861	5481	5361	A	2064	682	A	9883	978	A
7	MC	10861	5481	5361	A	2064	682	A	9883	978	>C
8	MC	10861	5481	5361	A	2064	682	A	9883	978	A
9	MC	10861	5481	5361	A	2064	682	A	9883	978	A
15	MC	10861	5481	5361	A	2064	682	A	9883	978	A
16	MC	10861	5481	5361	A	2064	682	A	9883	978	A
17	MC	10861	5481	5361	A	2064	682	>B	9883	978	A
23	MC	10861	5481	5361	A	2064	682	A	9883	978	A
24	MC	10861	5481	5361	A	2064	682	A	9883	978	A
25	MC	10861	5481	5361	A	2064	682	A	9883	978	A
26	MC	10861	5481	5361	A	2064	682	A	9883	978	A
27	MC	10861	5481	5361	A	2064	682	A	9883	978	A
28	MC	10861	5481	5361	A	2064	682	A	9883	978	A
34	MC	10861	5481	5361	A	2064	682	>B	9883	978	A
35	MC	10861	5481	5361	A	2064	682	>C	9883	978	A
40	MC	10861	5481	5361	A	2064	682	A	9883	978	A
42	MC	10861	5481	5361	A	2064	682	A	9883	978	A
43	MC	10861	5481	5361	A	2064	682	A	9883	978	A
44	MC	10861	5481	5361	A	2064	682	A	9883	978	A
45	MC	10861	5481	5361	A	2064	682	A	9883	978	A
46	MC	10861	5481	5361	A	2064	682	A	9883	978	A
47	MC	10861	5481	5361	A	2064	682	A	9883	978	A
48	MC	10861	5481	5361	A	2064	682	A	9883	978	A

Item No.	Type	Total N	No. of Male	No. of Female	DIF M/F	No. Of White	No. of Native American	DIF W/I	No. of Non-IEP	No. of IEP	DIF N/IEP
49	MC	10861	5481	5361	A	2064	682	A	9883	978	A
50	MC	10861	5481	5361	A	2064	682	A	9883	978	A
51	MC	10861	5481	5361	A	2064	682	A	9883	978	A
52	MC	10861	5481	5361	A	2064	682	A	9883	978	A
53	MC	10861	5481	5361	<C	2064	682	A	9883	978	A
54	MC	10861	5481	5361	A	2064	682	A	9883	978	A
57	MC	10861	5481	5361	A	2064	682	A	9883	978	A
61	MC	10861	5481	5361	A	2064	682	A	9883	978	A
62	MC	10861	5481	5361	A	2064	682	A	9883	978	A
63	MC	10861	5481	5361	A	2064	682	A	9883	978	A
64	MC	10861	5481	5361	A	2064	682	A	9883	978	A

DIF Classifications for DSTEP CRT Reading Grade 8

Item No.	Type	Total N	No. of Male	No. of Female	DIF M/F	No. Of White	No. of Native American	DIF W/I	No. of Non-IEP	No. of IEP	DIF N/IEP
1	MC	10676	5430	5234	A	2097	657	A	9772	904	>C
2	MC	10676	5430	5234	A	2097	657	>B	9772	904	>C
3	MC	10676	5430	5234	A	2097	657	A	9772	904	A
4	MC	10676	5430	5234	A	2097	657	A	9772	904	A
5	MC	10676	5430	5234	A	2097	657	A	9772	904	A
8	MC	10676	5430	5234	A	2097	657	A	9772	904	A
9	MC	10676	5430	5234	A	2097	657	A	9772	904	A
10	MC	10676	5430	5234	<B	2097	657	A	9772	904	>C
11	MC	10676	5430	5234	A	2097	657	A	9772	904	A
12	MC	10676	5430	5234	A	2097	657	A	9772	904	A
13	MC	10676	5430	5234	A	2097	657	A	9772	904	A
14	MC	10676	5430	5234	A	2097	657	A	9772	904	A
15	MC	10676	5430	5234	A	2097	657	A	9772	904	A
17	MC	10676	5430	5234	A	2097	657	A	9772	904	A
20	MC	10676	5430	5234	A	2097	657	A	9772	904	A
21	MC	10676	5430	5234	A	2097	657	>B	9772	904	A
23	MC	10676	5430	5234	A	2097	657	>B	9772	904	A
33	MC	10676	5430	5234	A	2097	657	A	9772	904	A
34	MC	10676	5430	5234	A	2097	657	A	9772	904	A
39	MC	10676	5430	5234	A	2097	657	>B	9772	904	>B
41	MC	10676	5430	5234	A	2097	657	A	9772	904	A
6	MC	10676	5430	5234	A	2097	657	A	9772	904	A
7	MC	10676	5430	5234	A	2097	657	A	9772	904	A
22	MC	10676	5430	5234	A	2097	657	A	9772	904	A
24	MC	10676	5430	5234	A	2097	657	A	9772	904	A
25	MC	10676	5430	5234	A	2097	657	A	9772	904	A
26	MC	10676	5430	5234	A	2097	657	A	9772	904	A
27	MC	10676	5430	5234	A	2097	657	A	9772	904	A
28	MC	10676	5430	5234	<B	2097	657	A	9772	904	A
29	MC	10676	5430	5234	<B	2097	657	A	9772	904	A
30	MC	10676	5430	5234	A	2097	657	A	9772	904	A
31	MC	10676	5430	5234	A	2097	657	A	9772	904	A
38	MC	10676	5430	5234	A	2097	657	A	9772	904	A
42	MC	10676	5430	5234	A	2097	657	A	9772	904	A
44	MC	10676	5430	5234	A	2097	657	A	9772	904	A
45	MC	10676	5430	5234	A	2097	657	A	9772	904	A
46	MC	10676	5430	5234	A	2097	657	A	9772	904	A
47	MC	10676	5430	5234	A	2097	657	A	9772	904	A
48	MC	10676	5430	5234	A	2097	657	>C	9772	904	A
49	MC	10676	5430	5234	A	2097	657	A	9772	904	A
50	MC	10676	5430	5234	A	2097	657	A	9772	904	A
51	MC	10676	5430	5234	A	2097	657	A	9772	904	A
52	MC	10676	5430	5234	A	2097	657	A	9772	904	A
53	MC	10676	5430	5234	A	2097	657	A	9772	904	A
54	MC	10676	5430	5234	A	2097	657	A	9772	904	A
55	MC	10676	5430	5234	A	2097	657	A	9772	904	A

Item No.	Type	Total N	No. of Male	No. of Female	DIF M/F	No. Of White	No. of Native American	DIF W/I	No. of Non-IEP	No. of IEP	DIF N/IEP
56	MC	10676	5430	5234	A	2097	657	A	9772	904	A
57	MC	10676	5430	5234	A	2097	657	A	9772	904	A
58	MC	10676	5430	5234	A	2097	657	A	9772	904	A

DIF Classifications for DSTEP CRT Reading Grade 11

Item No.	Type	Total N	No. of Male	No. of Female	DIF M/F	No. Of White	No. of Native American	DIF W/I	No. of Non-IEP	No. of IEP	DIF N/IEP
2	MC	9352	4708	4621	<B	1898	425	<C	8861	491	>C
3	MC	9352	4708	4621	A	1898	425	A	8861	491	>B
4	MC	9352	4708	4621	A	1898	425	A	8861	491	A
6	MC	9352	4708	4621	<C	1898	425	<B	8861	491	>B
7	MC	9352	4708	4621	A	1898	425	A	8861	491	A
8	MC	9352	4708	4621	A	1898	425	A	8861	491	>C
9	MC	9352	4708	4621	A	1898	425	>B	8861	491	>B
20	MC	9352	4708	4621	A	1898	425	>C	8861	491	>C
27	MC	9352	4708	4621	A	1898	425	A	8861	491	>B
29	MC	9352	4708	4621	A	1898	425	A	8861	491	A
30	MC	9352	4708	4621	A	1898	425	<B	8861	491	>B
32	MC	9352	4708	4621	>B	1898	425	>B	8861	491	A
33	MC	9352	4708	4621	>B	1898	425	A	8861	491	A
35	MC	9352	4708	4621	A	1898	425	A	8861	491	>B
37	MC	9352	4708	4621	<B	1898	425	A	8861	491	>B
38	MC	9352	4708	4621	A	1898	425	A	8861	491	>B
39	MC	9352	4708	4621	A	1898	425	A	8861	491	A
45	MC	9352	4708	4621	A	1898	425	A	8861	491	>C
10	MC	9352	4708	4621	A	1898	425	>B	8861	491	A
11	MC	9352	4708	4621	A	1898	425	>C	8861	491	A
12	MC	9352	4708	4621	A	1898	425	<B	8861	491	A
13	MC	9352	4708	4621	A	1898	425	A	8861	491	>B
14	MC	9352	4708	4621	A	1898	425	A	8861	491	A
18	MC	9352	4708	4621	A	1898	425	A	8861	491	>C
21	MC	9352	4708	4621	A	1898	425	A	8861	491	A
22	MC	9352	4708	4621	A	1898	425	>B	8861	491	A
23	MC	9352	4708	4621	A	1898	425	A	8861	491	A
24	MC	9352	4708	4621	A	1898	425	A	8861	491	A
25	MC	9352	4708	4621	A	1898	425	A	8861	491	A
26	MC	9352	4708	4621	A	1898	425	A	8861	491	A
34	MC	9352	4708	4621	A	1898	425	A	8861	491	>B
36	MC	9352	4708	4621	>B	1898	425	A	8861	491	A
44	MC	9352	4708	4621	A	1898	425	A	8861	491	A
46	MC	9352	4708	4621	A	1898	425	>B	8861	491	A
47	MC	9352	4708	4621	A	1898	425	A	8861	491	A
48	MC	9352	4708	4621	<B	1898	425	A	8861	491	>B
49	MC	9352	4708	4621	A	1898	425	A	8861	491	>B
50	MC	9352	4708	4621	A	1898	425	A	8861	491	A
51	MC	9352	4708	4621	<B	1898	425	A	8861	491	>B
52	MC	9352	4708	4621	A	1898	425	A	8861	491	A

DIF Classifications for DSTEP CRT Mathematics Grade 3

Item No.	Type	Total N	No. of Male	No. of Female	DIF M/F	No. Of White	No. of Native American	DIF W/I	No. of Non-IEP	No. of IEP	DIF N/IEP
1	MC	10010	5128	4868	A	1982	502	A	9090	920	A
3	MC	10010	5128	4868	A	1982	502	A	9090	920	>B
5	MC	10010	5128	4868	A	1982	502	A	9090	920	A
6	MC	10010	5128	4868	A	1982	502	A	9090	920	>C
8	MC	10010	5128	4868	A	1982	502	>B	9090	920	A
10	MC	10010	5128	4868	A	1982	502	A	9090	920	A
11	MC	10010	5128	4868	A	1982	502	A	9090	920	A
12	MC	10010	5128	4868	A	1982	502	A	9090	920	A
14	MC	10010	5128	4868	A	1982	502	A	9090	920	A
15	MC	10010	5128	4868	A	1982	502	A	9090	920	A
16	MC	10010	5128	4868	A	1982	502	A	9090	920	A
18	MC	10010	5128	4868	A	1982	502	A	9090	920	>C
19	MC	10010	5128	4868	A	1982	502	A	9090	920	A
20	MC	10010	5128	4868	A	1982	502	A	9090	920	A
21	MC	10010	5128	4868	A	1982	502	A	9090	920	>B
22	MC	10010	5128	4868	A	1982	502	A	9090	920	A
23	MC	10010	5128	4868	A	1982	502	A	9090	920	A
24	MC	10010	5128	4868	A	1982	502	A	9090	920	A
25	MC	10010	5128	4868	A	1982	502	A	9090	920	A
26	MC	10010	5128	4868	A	1982	502	A	9090	920	A
27	MC	10010	5128	4868	A	1982	502	A	9090	920	>B
28	MC	10010	5128	4868	A	1982	502	A	9090	920	A
29	MC	10010	5128	4868	A	1982	502	A	9090	920	>B
30	MC	10010	5128	4868	A	1982	502	A	9090	920	A
31	MC	10010	5128	4868	A	1982	502	A	9090	920	>B
32	MC	10010	5128	4868	A	1982	502	A	9090	920	A
33	MC	10010	5128	4868	A	1982	502	A	9090	920	>C
34	MC	10010	5128	4868	A	1982	502	A	9090	920	A
35	MC	10010	5128	4868	A	1982	502	A	9090	920	A
36	MC	10010	5128	4868	A	1982	502	>B	9090	920	A
37	MC	10010	5128	4868	A	1982	502	A	9090	920	A
38	MC	10010	5128	4868	A	1982	502	A	9090	920	A
39	MC	10010	5128	4868	A	1982	502	A	9090	920	>B
40	MC	10010	5128	4868	A	1982	502	A	9090	920	A
41	MC	10010	5128	4868	A	1982	502	A	9090	920	A
42	MC	10010	5128	4868	A	1982	502	A	9090	920	A
43	MC	10010	5128	4868	A	1982	502	A	9090	920	>B
44	MC	10010	5128	4868	A	1982	502	A	9090	920	A
45	MC	10010	5128	4868	A	1982	502	A	9090	920	A
46	MC	10010	5128	4868	A	1982	502	A	9090	920	A
47	MC	10010	5128	4868	A	1982	502	A	9090	920	A
48	MC	10010	5128	4868	A	1982	502	A	9090	920	A
49	MC	10010	5128	4868	A	1982	502	A	9090	920	A
50	MC	10010	5128	4868	A	1982	502	A	9090	920	A
51	MC	10010	5128	4868	A	1982	502	A	9090	920	A

Item No.	Type	Total N	No. of Male	No. of Female	DIF M/F	No. Of White	No. of Native American	DIF W/I	No. of Non-IEP	No. of IEP	DIF N/IEP
52	MC	10010	5128	4868	A	1982	502	A	9090	920	A
53	MC	10010	5128	4868	A	1982	502	A	9090	920	A
54	MC	10010	5128	4868	A	1982	502	A	9090	920	A
55	MC	10010	5128	4868	A	1982	502	A	9090	920	A
56	MC	10010	5128	4868	A	1982	502	A	9090	920	A
57	MC	10010	5128	4868	A	1982	502	A	9090	920	A
58	MC	10010	5128	4868	A	1982	502	A	9090	920	A
59	MC	10010	5128	4868	A	1982	502	A	9090	920	>B
60	MC	10010	5128	4868	A	1982	502	A	9090	920	A
61	MC	10010	5128	4868	A	1982	502	A	9090	920	A
62	MC	10010	5128	4868	A	1982	502	A	9090	920	A
63	MC	10010	5128	4868	A	1982	502	A	9090	920	A
64	MC	10010	5128	4868	A	1982	502	A	9090	920	A
65	MC	10010	5128	4868	A	1982	502	A	9090	920	A
66	MC	10010	5128	4868	A	1982	502	A	9090	920	A
67	MC	10010	5128	4868	A	1982	502	A	9090	920	A
68	MC	10010	5128	4868	A	1982	502	A	9090	920	A
69	MC	10010	5128	4868	A	1982	502	A	9090	920	A
70	MC	10010	5128	4868	A	1982	502	A	9090	920	A
71	MC	10010	5128	4868	A	1982	502	A	9090	920	A
72	MC	10010	5128	4868	A	1982	502	A	9090	920	A
73	MC	10010	5128	4868	A	1982	502	A	9090	920	A
74	MC	10010	5128	4868	A	1982	502	A	9090	920	A
75	MC	10010	5128	4868	A	1982	502	A	9090	920	A
76	MC	10010	5128	4868	A	1982	502	A	9090	920	A
77	MC	10010	5128	4868	A	1982	502	A	9090	920	A
78	MC	10010	5128	4868	A	1982	502	A	9090	920	A
79	MC	10010	5128	4868	A	1982	502	A	9090	920	A
80	MC	10010	5128	4868	A	1982	502	A	9090	920	A
81	MC	10010	5128	4868	A	1982	502	A	9090	920	A
82	MC	10010	5128	4868	A	1982	502	A	9090	920	A
83	MC	10010	5128	4868	A	1982	502	A	9090	920	A
84	MC	10010	5128	4868	<B	1982	502	A	9090	920	>B
85	MC	10010	5128	4868	A	1982	502	A	9090	920	A
86	MC	10010	5128	4868	A	1982	502	>C	9090	920	A
87	MC	10010	5128	4868	A	1982	502	A	9090	920	>B
88	MC	10010	5128	4868	A	1982	502	>C	9090	920	A
89	MC	10010	5128	4868	A	1982	502	A	9090	920	A
90	MC	10010	5128	4868	A	1982	502	A	9090	920	A
91	MC	10010	5128	4868	A	1982	502	A	9090	920	A
92	MC	10010	5128	4868	A	1982	502	A	9090	920	A
93	MC	10010	5128	4868	A	1982	502	A	9090	920	A
94	MC	10010	5128	4868	A	1982	502	A	9090	920	<B
95	MC	10010	5128	4868	A	1982	502	A	9090	920	A
96	MC	10010	5128	4868	A	1982	502	A	9090	920	A
97	MC	10010	5128	4868	A	1982	502	A	9090	920	A

Item No.	Type	Total N	No. of Male	No. of Female	DIF M/F	No. Of White	No. of Native American	DIF W/I	No. of Non-IEP	No. of IEP	DIF N/IEP
98	MC	10010	5128	4868	A	1982	502	A	9090	920	A
99	MC	10010	5128	4868	A	1982	502	A	9090	920	A
100	MC	10010	5128	4868	A	1982	502	A	9090	920	A
101	MC	10010	5128	4868	A	1982	502	A	9090	920	A
102	MC	10010	5128	4868	A	1982	502	A	9090	920	A
103	MC	10010	5128	4868	A	1982	502	A	9090	920	A
104	MC	10010	5128	4868	A	1982	502	A	9090	920	A
105	MC	10010	5128	4868	A	1982	502	A	9090	920	A
106	MC	10010	5128	4868	A	1982	502	A	9090	920	A
107	MC	10010	5128	4868	A	1982	502	A	9090	920	A
108	MC	10010	5128	4868	A	1982	502	A	9090	920	A
109	MC	10010	5128	4868	A	1982	502	A	9090	920	A
110	MC	10010	5128	4868	A	1982	502	A	9090	920	A
111	MC	10010	5128	4868	A	1982	502	A	9090	920	A

DIF Classifications for DSTEP CRT Mathematics Grade 4

Item No.	Type	Total N	No. of Male	No. of Female	DIF M/F	No. Of White	No. of Native American	DIF W/I	No. Non-IEP	No. of IEP	DIF N/IEP
2	MC	10086	5218	4855	A	2023	424	A	9091	995	A
3	MC	10086	5218	4855	A	2023	424	A	9091	995	A
5	MC	10086	5218	4855	A	2023	424	>B	9091	995	A
6	MC	10086	5218	4855	A	2023	424	A	9091	995	A
7	MC	10086	5218	4855	A	2023	424	A	9091	995	A
8	MC	10086	5218	4855	A	2023	424	A	9091	995	A
9	MC	10086	5218	4855	A	2023	424	A	9091	995	A
10	MC	10086	5218	4855	A	2023	424	A	9091	995	>B
12	MC	10086	5218	4855	A	2023	424	A	9091	995	A
13	MC	10086	5218	4855	A	2023	424	A	9091	995	A
14	MC	10086	5218	4855	A	2023	424	A	9091	995	A
15	MC	10086	5218	4855	A	2023	424	A	9091	995	A
16	MC	10086	5218	4855	A	2023	424	A	9091	995	A
17	MC	10086	5218	4855	A	2023	424	A	9091	995	A
18	MC	10086	5218	4855	A	2023	424	A	9091	995	>B
19	MC	10086	5218	4855	A	2023	424	A	9091	995	A
20	MC	10086	5218	4855	A	2023	424	A	9091	995	A
21	MC	10086	5218	4855	A	2023	424	A	9091	995	A
22	MC	10086	5218	4855	A	2023	424	>C	9091	995	A
23	MC	10086	5218	4855	A	2023	424	A	9091	995	A
24	MC	10086	5218	4855	A	2023	424	A	9091	995	A
25	MC	10086	5218	4855	A	2023	424	A	9091	995	A
28	MC	10086	5218	4855	A	2023	424	A	9091	995	A
29	MC	10086	5218	4855	A	2023	424	A	9091	995	A
30	MC	10086	5218	4855	A	2023	424	A	9091	995	A
31	MC	10086	5218	4855	A	2023	424	A	9091	995	A
32	MC	10086	5218	4855	A	2023	424	>C	9091	995	A
33	MC	10086	5218	4855	A	2023	424	A	9091	995	A
34	MC	10086	5218	4855	A	2023	424	A	9091	995	A
35	MC	10086	5218	4855	A	2023	424	A	9091	995	A
36	MC	10086	5218	4855	>B	2023	424	A	9091	995	A
37	MC	10086	5218	4855	A	2023	424	A	9091	995	A
38	MC	10086	5218	4855	A	2023	424	A	9091	995	A
39	MC	10086	5218	4855	A	2023	424	A	9091	995	A
40	MC	10086	5218	4855	A	2023	424	A	9091	995	A
41	MC	10086	5218	4855	<B	2023	424	A	9091	995	A
42	MC	10086	5218	4855	A	2023	424	A	9091	995	A
43	MC	10086	5218	4855	A	2023	424	A	9091	995	A
44	MC	10086	5218	4855	A	2023	424	A	9091	995	A
45	MC	10086	5218	4855	A	2023	424	>B	9091	995	A
46	MC	10086	5218	4855	A	2023	424	>B	9091	995	A
47	MC	10086	5218	4855	A	2023	424	A	9091	995	A
48	MC	10086	5218	4855	A	2023	424	A	9091	995	A
49	MC	10086	5218	4855	A	2023	424	A	9091	995	A
50	MC	10086	5218	4855	A	2023	424	A	9091	995	A
51	MC	10086	5218	4855	A	2023	424	A	9091	995	A

Item No.	Type	Total N	No. of Male	No. of Female	DIF M/F	No. Of White	No. of Native American	DIF W/I	No. of Non-IEP	No. of IEP	DIF N/IEP
52	MC	10086	5218	4855	A	2023	424	A	9091	995	A
53	MC	10086	5218	4855	A	2023	424	A	9091	995	A
54	MC	10086	5218	4855	A	2023	424	A	9091	995	A
55	MC	10086	5218	4855	A	2023	424	A	9091	995	A
56	MC	10086	5218	4855	A	2023	424	A	9091	995	A
57	MC	10086	5218	4855	A	2023	424	A	9091	995	A
58	MC	10086	5218	4855	>B	2023	424	A	9091	995	A
59	MC	10086	5218	4855	A	2023	424	A	9091	995	A
60	MC	10086	5218	4855	A	2023	424	A	9091	995	A
61	MC	10086	5218	4855	A	2023	424	A	9091	995	A
62	MC	10086	5218	4855	A	2023	424	A	9091	995	A
63	MC	10086	5218	4855	A	2023	424	A	9091	995	A
64	MC	10086	5218	4855	A	2023	424	A	9091	995	A
65	MC	10086	5218	4855	A	2023	424	A	9091	995	A
66	MC	10086	5218	4855	A	2023	424	A	9091	995	A
67	MC	10086	5218	4855	A	2023	424	A	9091	995	A
68	MC	10086	5218	4855	A	2023	424	A	9091	995	A
69	MC	10086	5218	4855	A	2023	424	A	9091	995	A
70	MC	10086	5218	4855	A	2023	424	A	9091	995	A
71	MC	10086	5218	4855	A	2023	424	A	9091	995	A
72	MC	10086	5218	4855	A	2023	424	A	9091	995	A
73	MC	10086	5218	4855	A	2023	424	A	9091	995	A
74	MC	10086	5218	4855	A	2023	424	A	9091	995	A
75	MC	10086	5218	4855	A	2023	424	A	9091	995	A
76	MC	10086	5218	4855	A	2023	424	A	9091	995	A
77	MC	10086	5218	4855	A	2023	424	A	9091	995	A
78	MC	10086	5218	4855	A	2023	424	A	9091	995	A
79	MC	10086	5218	4855	A	2023	424	A	9091	995	>C
80	MC	10086	5218	4855	A	2023	424	A	9091	995	A
81	MC	10086	5218	4855	A	2023	424	>B	9091	995	A
82	MC	10086	5218	4855	A	2023	424	>C	9091	995	A
83	MC	10086	5218	4855	A	2023	424	>C	9091	995	A
84	MC	10086	5218	4855	A	2023	424	>B	9091	995	A
85	MC	10086	5218	4855	A	2023	424	A	9091	995	A
86	MC	10086	5218	4855	A	2023	424	>B	9091	995	A
87	MC	10086	5218	4855	A	2023	424	A	9091	995	>B
88	MC	10086	5218	4855	A	2023	424	A	9091	995	A
89	MC	10086	5218	4855	A	2023	424	A	9091	995	A
90	MC	10086	5218	4855	A	2023	424	A	9091	995	A
91	MC	10086	5218	4855	A	2023	424	A	9091	995	A
92	MC	10086	5218	4855	A	2023	424	A	9091	995	A
93	MC	10086	5218	4855	A	2023	424	A	9091	995	A
94	MC	10086	5218	4855	A	2023	424	A	9091	995	A
95	MC	10086	5218	4855	A	2023	424	A	9091	995	A
96	MC	10086	5218	4855	A	2023	424	A	9091	995	A
97	MC	10086	5218	4855	A	2023	424	A	9091	995	A
98	MC	10086	5218	4855	A	2023	424	A	9091	995	A
99	MC	10086	5218	4855	A	2023	424	A	9091	995	>B

Item No.	Type	Total N	No. of Male	No. of Female	DIF M/F	No. Of White	No. of Native American	DIF W/I	No. of Non-IEP	No. of IEP	DIF N/IEP
100	MC	10086	5218	4855	A	2023	424	A	9091	995	A
101	MC	10086	5218	4855	A	2023	424	A	9091	995	A
102	MC	10086	5218	4855	A	2023	424	A	9091	995	A
103	MC	10086	5218	4855	A	2023	424	A	9091	995	A
104	MC	10086	5218	4855	A	2023	424	A	9091	995	A
105	MC	10086	5218	4855	A	2023	424	<B	9091	995	A
106	MC	10086	5218	4855	A	2023	424	A	9091	995	A
107	MC	10086	5218	4855	A	2023	424	A	9091	995	A
108	MC	10086	5218	4855	A	2023	424	A	9091	995	A
109	MC	10086	5218	4855	A	2023	424	A	9091	995	A
110	MC	10086	5218	4855	A	2023	424	A	9091	995	A

DIF Classifications for DSTEP CRT Mathematics Grade 5

Item No.	Type	Total N	No. of Male	No. of Female	DIF M/F	No. Of White	No. of Native American	DIF W/I	No. of Non-IEP	No. of IEP	DIF N/IEP
3	MC	10368	5318	4981	>B	2091	548	A	9428	940	A
4	MC	10368	5318	4981	A	2091	548	A	9428	940	A
5	MC	10368	5318	4981	A	2091	548	A	9428	940	A
6	MC	10368	5318	4981	A	2091	548	A	9428	940	A
7	MC	10368	5318	4981	A	2091	548	A	9428	940	A
8	MC	10368	5318	4981	A	2091	548	>B	9428	940	A
9	MC	10368	5318	4981	A	2091	548	A	9428	940	A
10	MC	10368	5318	4981	A	2091	548	A	9428	940	A
11	MC	10368	5318	4981	A	2091	548	A	9428	940	A
12	MC	10368	5318	4981	A	2091	548	A	9428	940	A
13	MC	10368	5318	4981	A	2091	548	A	9428	940	A
14	MC	10368	5318	4981	A	2091	548	A	9428	940	A
15	MC	10368	5318	4981	A	2091	548	>B	9428	940	>B
17	MC	10368	5318	4981	A	2091	548	A	9428	940	A
18	MC	10368	5318	4981	A	2091	548	A	9428	940	A
19	MC	10368	5318	4981	A	2091	548	>B	9428	940	>B
20	MC	10368	5318	4981	A	2091	548	>B	9428	940	A
21	MC	10368	5318	4981	A	2091	548	A	9428	940	A
23	MC	10368	5318	4981	A	2091	548	A	9428	940	A
24	MC	10368	5318	4981	A	2091	548	A	9428	940	A
25	MC	10368	5318	4981	A	2091	548	>B	9428	940	A
26	MC	10368	5318	4981	A	2091	548	>B	9428	940	A
27	MC	10368	5318	4981	A	2091	548	A	9428	940	>B
28	MC	10368	5318	4981	>B	2091	548	A	9428	940	A
30	MC	10368	5318	4981	A	2091	548	A	9428	940	A
31	MC	10368	5318	4981	A	2091	548	A	9428	940	A
32	MC	10368	5318	4981	A	2091	548	A	9428	940	A
33	MC	10368	5318	4981	A	2091	548	A	9428	940	A
34	MC	10368	5318	4981	A	2091	548	A	9428	940	A
35	MC	10368	5318	4981	A	2091	548	A	9428	940	A
36	MC	10368	5318	4981	A	2091	548	A	9428	940	A
37	MC	10368	5318	4981	A	2091	548	A	9428	940	A
38	MC	10368	5318	4981	A	2091	548	A	9428	940	A
39	MC	10368	5318	4981	A	2091	548	A	9428	940	A
40	MC	10368	5318	4981	A	2091	548	A	9428	940	A
41	MC	10368	5318	4981	A	2091	548	A	9428	940	A
42	MC	10368	5318	4981	A	2091	548	A	9428	940	A
43	MC	10368	5318	4981	A	2091	548	A	9428	940	A
44	MC	10368	5318	4981	A	2091	548	A	9428	940	A
45	MC	10368	5318	4981	A	2091	548	A	9428	940	A
46	MC	10368	5318	4981	A	2091	548	A	9428	940	A
47	MC	10368	5318	4981	A	2091	548	A	9428	940	A
48	MC	10368	5318	4981	A	2091	548	A	9428	940	A
49	MC	10368	5318	4981	A	2091	548	A	9428	940	A
50	MC	10368	5318	4981	A	2091	548	A	9428	940	>C
51	MC	10368	5318	4981	A	2091	548	A	9428	940	A

Item No.	Type	Total N	No. of Male	No. of Female	DIF M/F	No. Of White	No. of Native American	DIF W/I	No. of Non-IEP	No. of IEP	No. DIF N/IEP
52	MC	10368	5318	4981	A	2091	548	A	9428	940	A
53	MC	10368	5318	4981	A	2091	548	A	9428	940	A
54	MC	10368	5318	4981	A	2091	548	A	9428	940	A
55	MC	10368	5318	4981	A	2091	548	A	9428	940	A
56	MC	10368	5318	4981	A	2091	548	A	9428	940	A
57	MC	10368	5318	4981	A	2091	548	A	9428	940	A
58	MC	10368	5318	4981	A	2091	548	A	9428	940	>B
59	MC	10368	5318	4981	A	2091	548	A	9428	940	A
60	MC	10368	5318	4981	A	2091	548	A	9428	940	A
61	MC	10368	5318	4981	A	2091	548	A	9428	940	A
62	MC	10368	5318	4981	A	2091	548	>C	9428	940	A
63	MC	10368	5318	4981	A	2091	548	A	9428	940	A
64	MC	10368	5318	4981	A	2091	548	A	9428	940	A
65	MC	10368	5318	4981	A	2091	548	A	9428	940	A
66	MC	10368	5318	4981	A	2091	548	A	9428	940	A
67	MC	10368	5318	4981	A	2091	548	A	9428	940	>B
68	MC	10368	5318	4981	A	2091	548	A	9428	940	A
69	MC	10368	5318	4981	A	2091	548	A	9428	940	A
70	MC	10368	5318	4981	A	2091	548	A	9428	940	A
71	MC	10368	5318	4981	A	2091	548	A	9428	940	A
72	MC	10368	5318	4981	A	2091	548	A	9428	940	A
73	MC	10368	5318	4981	A	2091	548	>C	9428	940	A
74	MC	10368	5318	4981	<C	2091	548	A	9428	940	>C
75	MC	10368	5318	4981	A	2091	548	A	9428	940	A
76	MC	10368	5318	4981	A	2091	548	A	9428	940	A
77	MC	10368	5318	4981	A	2091	548	A	9428	940	>B
78	MC	10368	5318	4981	<B	2091	548	A	9428	940	>B
79	MC	10368	5318	4981	A	2091	548	>B	9428	940	A
80	MC	10368	5318	4981	A	2091	548	A	9428	940	A
81	MC	10368	5318	4981	A	2091	548	A	9428	940	A
82	MC	10368	5318	4981	A	2091	548	A	9428	940	A
83	MC	10368	5318	4981	A	2091	548	A	9428	940	A
84	MC	10368	5318	4981	A	2091	548	A	9428	940	A
85	MC	10368	5318	4981	A	2091	548	A	9428	940	A
86	MC	10368	5318	4981	A	2091	548	A	9428	940	A
87	MC	10368	5318	4981	A	2091	548	>C	9428	940	A
88	MC	10368	5318	4981	A	2091	548	>C	9428	940	A
89	MC	10368	5318	4981	A	2091	548	>C	9428	940	A
90	MC	10368	5318	4981	A	2091	548	<B	9428	940	A
91	MC	10368	5318	4981	A	2091	548	A	9428	940	A
92	MC	10368	5318	4981	A	2091	548	A	9428	940	A
93	MC	10368	5318	4981	A	2091	548	A	9428	940	A
94	MC	10368	5318	4981	A	2091	548	A	9428	940	A
95	MC	10368	5318	4981	A	2091	548	A	9428	940	<B
96	MC	10368	5318	4981	A	2091	548	A	9428	940	A
97	MC	10368	5318	4981	A	2091	548	A	9428	940	A
98	MC	10368	5318	4981	A	2091	548	>C	9428	940	A

Item No.	Type	Total N	No. of Male	No. of Female	DIF M/F	No. Of White	No. of Native American	DIF W/I	No. of Non-IEP	No. of IEP	DIF N/IEP
99	MC	10368	5318	4981	A	2091	548	<B	9428	940	A
100	MC	10368	5318	4981	A	2091	548	A	9428	940	A
101	MC	10368	5318	4981	A	2091	548	A	9428	940	A
102	MC	10368	5318	4981	A	2091	548	A	9428	940	A
103	MC	10368	5318	4981	A	2091	548	A	9428	940	A
104	MC	10368	5318	4981	A	2091	548	A	9428	940	A
105	MC	10368	5318	4981	A	2091	548	A	9428	940	A
106	MC	10368	5318	4981	A	2091	548	A	9428	940	A
107	MC	10368	5318	4981	A	2091	548	A	9428	940	A
108	MC	10368	5318	4981	A	2091	548	A	9428	940	A
109	MC	10368	5318	4981	A	2091	548	A	9428	940	A
110	MC	10368	5318	4981	A	2091	548	A	9428	940	A

DIF Classifications for DSTEP CRT Mathematics Grade 6

Item No.	Type	Total N	No. of Male	No. of Female	DIF M/F	No. Of White	No. of Native American	DIF W/I	No. of Non-IEP	No. of IEP	DIF N/IEP
1	MC	10539	5423	5100	A	1969	514	>B	9614	925	A
3	MC	10539	5423	5100	A	1969	514	A	9614	925	>B
4	MC	10539	5423	5100	A	1969	514	A	9614	925	A
5	MC	10539	5423	5100	A	1969	514	A	9614	925	A
6	MC	10539	5423	5100	>B	1969	514	>B	9614	925	>C
7	MC	10539	5423	5100	A	1969	514	>C	9614	925	A
8	MC	10539	5423	5100	A	1969	514	A	9614	925	A
9	MC	10539	5423	5100	A	1969	514	A	9614	925	A
10	MC	10539	5423	5100	A	1969	514	A	9614	925	>B
11	MC	10539	5423	5100	A	1969	514	A	9614	925	A
12	MC	10539	5423	5100	A	1969	514	A	9614	925	A
13	MC	10539	5423	5100	A	1969	514	A	9614	925	A
14	MC	10539	5423	5100	A	1969	514	A	9614	925	A
15	MC	10539	5423	5100	A	1969	514	A	9614	925	A
16	MC	10539	5423	5100	A	1969	514	A	9614	925	A
17	MC	10539	5423	5100	A	1969	514	A	9614	925	>B
18	MC	10539	5423	5100	A	1969	514	A	9614	925	A
19	MC	10539	5423	5100	A	1969	514	>C	9614	925	A
21	MC	10539	5423	5100	A	1969	514	A	9614	925	A
22	MC	10539	5423	5100	A	1969	514	A	9614	925	A
23	MC	10539	5423	5100	A	1969	514	A	9614	925	A
24	MC	10539	5423	5100	A	1969	514	A	9614	925	A
25	MC	10539	5423	5100	A	1969	514	>B	9614	925	A
26	MC	10539	5423	5100	A	1969	514	A	9614	925	A
27	MC	10539	5423	5100	A	1969	514	<B	9614	925	A
28	MC	10539	5423	5100	A	1969	514	A	9614	925	A
29	MC	10539	5423	5100	A	1969	514	A	9614	925	A
30	MC	10539	5423	5100	A	1969	514	A	9614	925	A
31	MC	10539	5423	5100	A	1969	514	A	9614	925	>C
32	MC	10539	5423	5100	A	1969	514	A	9614	925	A
33	MC	10539	5423	5100	A	1969	514	A	9614	925	>B
34	MC	10539	5423	5100	A	1969	514	A	9614	925	A
35	MC	10539	5423	5100	A	1969	514	>B	9614	925	A
36	MC	10539	5423	5100	A	1969	514	A	9614	925	>B
37	MC	10539	5423	5100	A	1969	514	A	9614	925	A
38	MC	10539	5423	5100	A	1969	514	A	9614	925	A
39	MC	10539	5423	5100	A	1969	514	A	9614	925	A
40	MC	10539	5423	5100	A	1969	514	A	9614	925	A
41	MC	10539	5423	5100	>B	1969	514	A	9614	925	A
42	MC	10539	5423	5100	A	1969	514	A	9614	925	A
43	MC	10539	5423	5100	A	1969	514	A	9614	925	A
44	MC	10539	5423	5100	A	1969	514	A	9614	925	A
45	MC	10539	5423	5100	A	1969	514	A	9614	925	A
46	MC	10539	5423	5100	A	1969	514	A	9614	925	A
47	MC	10539	5423	5100	A	1969	514	A	9614	925	A

Item No.	Type	Total N	No. of Male	No. of Female	DIF M/F	No. Of White	No. of Native American	DIF W/I	No. of Non-IEP	No. of IEP	DIF N/IEP
48	MC	10539	5423	5100	A	1969	514	A	9614	925	A
49	MC	10539	5423	5100	A	1969	514	A	9614	925	A
50	MC	10539	5423	5100	A	1969	514	A	9614	925	A
51	MC	10539	5423	5100	A	1969	514	A	9614	925	A
52	MC	10539	5423	5100	A	1969	514	A	9614	925	A
53	MC	10539	5423	5100	A	1969	514	A	9614	925	A
54	MC	10539	5423	5100	A	1969	514	A	9614	925	A
55	MC	10539	5423	5100	A	1969	514	A	9614	925	>B
56	MC	10539	5423	5100	A	1969	514	A	9614	925	A
57	MC	10539	5423	5100	A	1969	514	A	9614	925	A
58	MC	10539	5423	5100	<B	1969	514	A	9614	925	A
59	MC	10539	5423	5100	A	1969	514	A	9614	925	A
60	MC	10539	5423	5100	A	1969	514	A	9614	925	A
61	MC	10539	5423	5100	A	1969	514	A	9614	925	A
62	MC	10539	5423	5100	A	1969	514	A	9614	925	A
63	MC	10539	5423	5100	A	1969	514	>C	9614	925	A
64	MC	10539	5423	5100	A	1969	514	>B	9614	925	A
65	MC	10539	5423	5100	A	1969	514	A	9614	925	A
66	MC	10539	5423	5100	A	1969	514	A	9614	925	A
67	MC	10539	5423	5100	A	1969	514	A	9614	925	A
68	MC	10539	5423	5100	A	1969	514	>B	9614	925	A
69	MC	10539	5423	5100	A	1969	514	A	9614	925	A
70	MC	10539	5423	5100	A	1969	514	>C	9614	925	A
71	MC	10539	5423	5100	A	1969	514	A	9614	925	A
72	MC	10539	5423	5100	A	1969	514	A	9614	925	A
73	MC	10539	5423	5100	A	1969	514	A	9614	925	A
74	MC	10539	5423	5100	A	1969	514	A	9614	925	>B
75	MC	10539	5423	5100	<B	1969	514	A	9614	925	A
76	MC	10539	5423	5100	A	1969	514	A	9614	925	>B
77	MC	10539	5423	5100	A	1969	514	A	9614	925	A
78	MC	10539	5423	5100	A	1969	514	A	9614	925	A
79	MC	10539	5423	5100	A	1969	514	A	9614	925	A
80	MC	10539	5423	5100	>B	1969	514	A	9614	925	A
81	MC	10539	5423	5100	A	1969	514	A	9614	925	A
82	MC	10539	5423	5100	A	1969	514	>B	9614	925	A
83	MC	10539	5423	5100	>B	1969	514	A	9614	925	A
84	MC	10539	5423	5100	A	1969	514	>B	9614	925	A
85	MC	10539	5423	5100	A	1969	514	>B	9614	925	A
86	MC	10539	5423	5100	A	1969	514	A	9614	925	A
87	MC	10539	5423	5100	A	1969	514	>B	9614	925	A
88	MC	10539	5423	5100	A	1969	514	A	9614	925	A
89	MC	10539	5423	5100	A	1969	514	A	9614	925	A
90	MC	10539	5423	5100	A	1969	514	A	9614	925	A
91	MC	10539	5423	5100	A	1969	514	A	9614	925	A
92	MC	10539	5423	5100	A	1969	514	A	9614	925	A
93	MC	10539	5423	5100	A	1969	514	A	9614	925	A

Item No.	Type	Total N	No. of Male	No. of Female	DIF M/F	No. Of White	No. of Native American	DIF W/I	No. of Non-IEP	No. of IEP	DIF N/IEP
94	MC	10539	5423	5100	<B	1969	514	>B	9614	925	A
95	MC	10539	5423	5100	A	1969	514	A	9614	925	A
96	MC	10539	5423	5100	A	1969	514	>B	9614	925	A
97	MC	10539	5423	5100	A	1969	514	A	9614	925	A
98	MC	10539	5423	5100	A	1969	514	A	9614	925	A
99	MC	10539	5423	5100	A	1969	514	A	9614	925	A
100	MC	10539	5423	5100	A	1969	514	A	9614	925	A
101	MC	10539	5423	5100	A	1969	514	A	9614	925	A
102	MC	10539	5423	5100	A	1969	514	A	9614	925	A
103	MC	10539	5423	5100	A	1969	514	A	9614	925	A
104	MC	10539	5423	5100	A	1969	514	A	9614	925	A
105	MC	10539	5423	5100	A	1969	514	A	9614	925	A
106	MC	10539	5423	5100	A	1969	514	A	9614	925	A
107	MC	10539	5423	5100	A	1969	514	A	9614	925	A

DIF Classifications for DSTEP CRT Mathematics Grade 7

Item No.	Type	Total N	No. of Male	No. of Female	DIF M/F	No. Of White	No. of Native American	DIF W/I	No. of Non-IEP	No. of IEP	DIF N/IEP
1	MC	10874	5489	5366	A	2063	681	A	9898	976	A
2	MC	10874	5489	5366	A	2063	681	>B	9898	976	A
3	MC	10874	5489	5366	A	2063	681	A	9898	976	A
4	MC	10874	5489	5366	A	2063	681	A	9898	976	A
5	MC	10874	5489	5366	A	2063	681	A	9898	976	A
6	MC	10874	5489	5366	A	2063	681	A	9898	976	A
7	MC	10874	5489	5366	A	2063	681	>B	9898	976	A
8	MC	10874	5489	5366	A	2063	681	A	9898	976	A
9	MC	10874	5489	5366	A	2063	681	A	9898	976	A
10	MC	10874	5489	5366	A	2063	681	A	9898	976	A
11	MC	10874	5489	5366	A	2063	681	>C	9898	976	A
12	MC	10874	5489	5366	A	2063	681	A	9898	976	A
13	MC	10874	5489	5366	A	2063	681	A	9898	976	A
14	MC	10874	5489	5366	A	2063	681	A	9898	976	A
15	MC	10874	5489	5366	A	2063	681	A	9898	976	A
16	MC	10874	5489	5366	A	2063	681	A	9898	976	A
17	MC	10874	5489	5366	A	2063	681	A	9898	976	A
18	MC	10874	5489	5366	A	2063	681	>C	9898	976	A
19	MC	10874	5489	5366	A	2063	681	A	9898	976	A
20	MC	10874	5489	5366	A	2063	681	>B	9898	976	>B
21	MC	10874	5489	5366	A	2063	681	A	9898	976	A
22	MC	10874	5489	5366	A	2063	681	>C	9898	976	A
23	MC	10874	5489	5366	A	2063	681	A	9898	976	A
24	MC	10874	5489	5366	A	2063	681	A	9898	976	A
25	MC	10874	5489	5366	A	2063	681	A	9898	976	A
26	MC	10874	5489	5366	A	2063	681	A	9898	976	A
27	MC	10874	5489	5366	>B	2063	681	A	9898	976	A
28	MC	10874	5489	5366	A	2063	681	A	9898	976	A
29	MC	10874	5489	5366	A	2063	681	>B	9898	976	A
30	MC	10874	5489	5366	A	2063	681	A	9898	976	A
31	MC	10874	5489	5366	A	2063	681	A	9898	976	>B
32	MC	10874	5489	5366	A	2063	681	A	9898	976	A
33	MC	10874	5489	5366	A	2063	681	A	9898	976	>B
34	MC	10874	5489	5366	A	2063	681	A	9898	976	A
35	MC	10874	5489	5366	A	2063	681	A	9898	976	A
36	MC	10874	5489	5366	A	2063	681	A	9898	976	A
37	MC	10874	5489	5366	A	2063	681	A	9898	976	A
38	MC	10874	5489	5366	A	2063	681	A	9898	976	A
39	MC	10874	5489	5366	A	2063	681	A	9898	976	A
40	MC	10874	5489	5366	A	2063	681	A	9898	976	A
41	MC	10874	5489	5366	A	2063	681	A	9898	976	A
42	MC	10874	5489	5366	A	2063	681	A	9898	976	A
43	MC	10874	5489	5366	A	2063	681	A	9898	976	A
44	MC	10874	5489	5366	A	2063	681	A	9898	976	A
45	MC	10874	5489	5366	A	2063	681	A	9898	976	A

Item No.	Type	Total N	No. of Male	No. of Female	DIF M/F	No. Of White	No. of Native American	DIF W/I	No. of Non-IEP	No. of IEP	DIF N/IEP
46	MC	10874	5489	5366	A	2063	681	A	9898	976	A
47	MC	10874	5489	5366	A	2063	681	A	9898	976	A
48	MC	10874	5489	5366	A	2063	681	A	9898	976	A
49	MC	10874	5489	5366	A	2063	681	A	9898	976	A
50	MC	10874	5489	5366	A	2063	681	A	9898	976	A
51	MC	10874	5489	5366	A	2063	681	A	9898	976	>C
52	MC	10874	5489	5366	A	2063	681	A	9898	976	A
53	MC	10874	5489	5366	A	2063	681	A	9898	976	A
54	MC	10874	5489	5366	A	2063	681	A	9898	976	A
55	MC	10874	5489	5366	A	2063	681	A	9898	976	A
56	MC	10874	5489	5366	A	2063	681	A	9898	976	A
57	MC	10874	5489	5366	A	2063	681	A	9898	976	A
58	MC	10874	5489	5366	A	2063	681	A	9898	976	A
59	MC	10874	5489	5366	A	2063	681	A	9898	976	A
60	MC	10874	5489	5366	A	2063	681	A	9898	976	A
61	MC	10874	5489	5366	A	2063	681	A	9898	976	A
62	MC	10874	5489	5366	A	2063	681	A	9898	976	A
63	MC	10874	5489	5366	A	2063	681	A	9898	976	A
64	MC	10874	5489	5366	A	2063	681	A	9898	976	A
65	MC	10874	5489	5366	A	2063	681	A	9898	976	A
66	MC	10874	5489	5366	<C	2063	681	A	9898	976	>B
67	MC	10874	5489	5366	A	2063	681	A	9898	976	A
68	MC	10874	5489	5366	A	2063	681	A	9898	976	A
69	MC	10874	5489	5366	A	2063	681	A	9898	976	A
70	MC	10874	5489	5366	A	2063	681	A	9898	976	A
71	MC	10874	5489	5366	A	2063	681	A	9898	976	A
72	MC	10874	5489	5366	<B	2063	681	A	9898	976	>B
73	MC	10874	5489	5366	A	2063	681	A	9898	976	A
74	MC	10874	5489	5366	A	2063	681	A	9898	976	A
75	MC	10874	5489	5366	A	2063	681	A	9898	976	A
76	MC	10874	5489	5366	A	2063	681	A	9898	976	A
77	MC	10874	5489	5366	A	2063	681	A	9898	976	A
78	MC	10874	5489	5366	A	2063	681	>B	9898	976	A
79	MC	10874	5489	5366	A	2063	681	A	9898	976	A
80	MC	10874	5489	5366	A	2063	681	A	9898	976	A
81	MC	10874	5489	5366	A	2063	681	A	9898	976	A
82	MC	10874	5489	5366	A	2063	681	A	9898	976	A
83	MC	10874	5489	5366	A	2063	681	A	9898	976	A
84	MC	10874	5489	5366	A	2063	681	A	9898	976	A
85	MC	10874	5489	5366	A	2063	681	A	9898	976	A
86	MC	10874	5489	5366	A	2063	681	A	9898	976	A
87	MC	10874	5489	5366	A	2063	681	A	9898	976	A
88	MC	10874	5489	5366	A	2063	681	A	9898	976	A
89	MC	10874	5489	5366	A	2063	681	A	9898	976	A
90	MC	10874	5489	5366	A	2063	681	A	9898	976	A
91	MC	10874	5489	5366	A	2063	681	A	9898	976	A

Item No.	Type	Total N	No. of Male	No. of Female	DIF M/F	No. Of White	No. of Native American	DIF W/I	No. of Non-IEP	No. of IEP	DIF N/IEP
92	MC	10874	5489	5366	A	2063	681	A	9898	976	A
93	MC	10874	5489	5366	A	2063	681	A	9898	976	A
94	MC	10874	5489	5366	A	2063	681	A	9898	976	A
95	MC	10874	5489	5366	A	2063	681	A	9898	976	A
96	MC	10874	5489	5366	A	2063	681	A	9898	976	A
97	MC	10874	5489	5366	A	2063	681	A	9898	976	A
98	MC	10874	5489	5366	A	2063	681	A	9898	976	A
99	MC	10874	5489	5366	A	2063	681	A	9898	976	A
100	MC	10874	5489	5366	A	2063	681	A	9898	976	A
101	MC	10874	5489	5366	A	2063	681	A	9898	976	A
102	MC	10874	5489	5366	A	2063	681	>B	9898	976	A
103	MC	10874	5489	5366	A	2063	681	A	9898	976	A
104	MC	10874	5489	5366	A	2063	681	A	9898	976	A
105	MC	10874	5489	5366	A	2063	681	A	9898	976	A

DIF Classifications for DSTEP CRT Mathematics Grade 8

Item No.	Type	Total N	No. of Male	No. of Female	DIF M/F	No. Of White	No. of Native American	DIF W/I	No. of Non-IEP	No. of IEP	DIF N/IEP
1	MC	10679	5430	5237	>B	2097	655	A	9775	904	A
2	MC	10679	5430	5237	A	2097	655	A	9775	904	A
3	MC	10679	5430	5237	>B	2097	655	A	9775	904	A
4	MC	10679	5430	5237	A	2097	655	A	9775	904	A
5	MC	10679	5430	5237	A	2097	655	A	9775	904	A
6	MC	10679	5430	5237	A	2097	655	A	9775	904	A
7	MC	10679	5430	5237	A	2097	655	A	9775	904	A
8	MC	10679	5430	5237	A	2097	655	A	9775	904	A
9	MC	10679	5430	5237	A	2097	655	A	9775	904	A
10	MC	10679	5430	5237	A	2097	655	A	9775	904	A
11	MC	10679	5430	5237	A	2097	655	A	9775	904	A
12	MC	10679	5430	5237	A	2097	655	A	9775	904	A
13	MC	10679	5430	5237	A	2097	655	A	9775	904	A
14	MC	10679	5430	5237	A	2097	655	A	9775	904	A
15	MC	10679	5430	5237	A	2097	655	A	9775	904	A
16	MC	10679	5430	5237	A	2097	655	A	9775	904	A
17	MC	10679	5430	5237	A	2097	655	A	9775	904	A
18	MC	10679	5430	5237	A	2097	655	A	9775	904	A
19	MC	10679	5430	5237	A	2097	655	A	9775	904	A
20	MC	10679	5430	5237	A	2097	655	>B	9775	904	A
21	MC	10679	5430	5237	A	2097	655	A	9775	904	A
22	MC	10679	5430	5237	>B	2097	655	>B	9775	904	A
23	MC	10679	5430	5237	A	2097	655	A	9775	904	A
24	MC	10679	5430	5237	A	2097	655	A	9775	904	A
25	MC	10679	5430	5237	A	2097	655	A	9775	904	A
26	MC	10679	5430	5237	A	2097	655	A	9775	904	A
27	MC	10679	5430	5237	A	2097	655	A	9775	904	A
28	MC	10679	5430	5237	A	2097	655	A	9775	904	A
29	MC	10679	5430	5237	A	2097	655	A	9775	904	A
30	MC	10679	5430	5237	A	2097	655	A	9775	904	A
31	MC	10679	5430	5237	A	2097	655	<B	9775	904	A
32	MC	10679	5430	5237	A	2097	655	A	9775	904	A
33	MC	10679	5430	5237	A	2097	655	A	9775	904	A
34	MC	10679	5430	5237	A	2097	655	>B	9775	904	A
35	MC	10679	5430	5237	A	2097	655	A	9775	904	>B
36	MC	10679	5430	5237	A	2097	655	A	9775	904	A
37	MC	10679	5430	5237	A	2097	655	A	9775	904	A
38	MC	10679	5430	5237	>B	2097	655	A	9775	904	A
39	MC	10679	5430	5237	A	2097	655	A	9775	904	A
40	MC	10679	5430	5237	A	2097	655	A	9775	904	A
41	MC	10679	5430	5237	>B	2097	655	A	9775	904	A
42	MC	10679	5430	5237	A	2097	655	A	9775	904	A
43	MC	10679	5430	5237	A	2097	655	A	9775	904	A
44	MC	10679	5430	5237	A	2097	655	A	9775	904	A
45	MC	10679	5430	5237	A	2097	655	A	9775	904	A

Item No.	Type	Total N	No. of Male	No. of Female	DIF M/F	No. Of White	No. of Native American	DIF W/I	No. of Non-IEP	No. of IEP	DIF N/IEP
46	MC	10679	5430	5237	A	2097	655	>B	9775	904	A
47	MC	10679	5430	5237	A	2097	655	A	9775	904	A
48	MC	10679	5430	5237	A	2097	655	>B	9775	904	A
49	MC	10679	5430	5237	A	2097	655	>B	9775	904	A
50	MC	10679	5430	5237	A	2097	655	A	9775	904	A
51	MC	10679	5430	5237	A	2097	655	A	9775	904	A
52	MC	10679	5430	5237	A	2097	655	A	9775	904	A
53	MC	10679	5430	5237	A	2097	655	A	9775	904	A
54	MC	10679	5430	5237	<B	2097	655	A	9775	904	A
55	MC	10679	5430	5237	A	2097	655	A	9775	904	>B
56	MC	10679	5430	5237	A	2097	655	A	9775	904	A
57	MC	10679	5430	5237	A	2097	655	A	9775	904	A
58	MC	10679	5430	5237	A	2097	655	A	9775	904	A
59	MC	10679	5430	5237	A	2097	655	A	9775	904	A
60	MC	10679	5430	5237	<B	2097	655	A	9775	904	A
61	MC	10679	5430	5237	A	2097	655	A	9775	904	A
62	MC	10679	5430	5237	A	2097	655	A	9775	904	A
63	MC	10679	5430	5237	A	2097	655	A	9775	904	A
64	MC	10679	5430	5237	A	2097	655	A	9775	904	A
65	MC	10679	5430	5237	A	2097	655	A	9775	904	A
66	MC	10679	5430	5237	A	2097	655	A	9775	904	A
67	MC	10679	5430	5237	A	2097	655	A	9775	904	A
68	MC	10679	5430	5237	A	2097	655	A	9775	904	A
69	MC	10679	5430	5237	A	2097	655	A	9775	904	A
70	MC	10679	5430	5237	A	2097	655	A	9775	904	A
71	MC	10679	5430	5237	A	2097	655	A	9775	904	A
72	MC	10679	5430	5237	A	2097	655	A	9775	904	A
73	MC	10679	5430	5237	A	2097	655	A	9775	904	A
74	MC	10679	5430	5237	A	2097	655	A	9775	904	A
75	MC	10679	5430	5237	A	2097	655	A	9775	904	A
76	MC	10679	5430	5237	A	2097	655	>C	9775	904	A
77	MC	10679	5430	5237	A	2097	655	A	9775	904	>B
78	MC	10679	5430	5237	A	2097	655	A	9775	904	A
79	MC	10679	5430	5237	A	2097	655	A	9775	904	A
80	MC	10679	5430	5237	A	2097	655	A	9775	904	A
81	MC	10679	5430	5237	A	2097	655	A	9775	904	A
82	MC	10679	5430	5237	A	2097	655	A	9775	904	A
83	MC	10679	5430	5237	A	2097	655	A	9775	904	A
84	MC	10679	5430	5237	A	2097	655	A	9775	904	A
85	MC	10679	5430	5237	A	2097	655	A	9775	904	A
86	MC	10679	5430	5237	A	2097	655	A	9775	904	A
87	MC	10679	5430	5237	A	2097	655	A	9775	904	A
88	MC	10679	5430	5237	A	2097	655	A	9775	904	A
89	MC	10679	5430	5237	A	2097	655	A	9775	904	A
90	MC	10679	5430	5237	A	2097	655	A	9775	904	A
91	MC	10679	5430	5237	A	2097	655	A	9775	904	A

Item No.	Type	Total N	No. of Male	No. of Female	DIF M/F	No. Of White	No. of Native American	DIF W/I	No. of Non-IEP	No. of IEP	DIF N/IEP
92	MC	10679	5430	5237	A	2097	655	A	9775	904	A
93	MC	10679	5430	5237	A	2097	655	A	9775	904	A
94	MC	10679	5430	5237	A	2097	655	A	9775	904	A
95	MC	10679	5430	5237	A	2097	655	A	9775	904	A
96	MC	10679	5430	5237	A	2097	655	A	9775	904	A
97	MC	10679	5430	5237	A	2097	655	A	9775	904	A
98	MC	10679	5430	5237	A	2097	655	A	9775	904	A
99	MC	10679	5430	5237	A	2097	655	<B	9775	904	A
100	MC	10679	5430	5237	A	2097	655	A	9775	904	A
101	MC	10679	5430	5237	A	2097	655	A	9775	904	A
102	MC	10679	5430	5237	A	2097	655	A	9775	904	A
103	MC	10679	5430	5237	A	2097	655	A	9775	904	A
104	MC	10679	5430	5237	A	2097	655	A	9775	904	A
105	MC	10679	5430	5237	A	2097	655	A	9775	904	A

DIF Classifications for DSTEP CRT Mathematics Grade 11

Item No.	Type	Total N	No. of Male	No. of Female	DIF M/F	No. Of White	No. of Native American	DIF W/I	No. of Non-IEP	No. of IEP	DIF N/IEP
1	MC	9353	4706	4624	A	1898	423	A	8868	485	A
2	MC	9353	4706	4624	A	1898	423	A	8868	485	A
3	MC	9353	4706	4624	A	1898	423	A	8868	485	A
4	MC	9353	4706	4624	>C	1898	423	A	8868	485	A
5	MC	9353	4706	4624	A	1898	423	A	8868	485	A
6	MC	9353	4706	4624	A	1898	423	A	8868	485	A
7	MC	9353	4706	4624	A	1898	423	A	8868	485	>B
8	MC	9353	4706	4624	A	1898	423	A	8868	485	A
9	MC	9353	4706	4624	A	1898	423	A	8868	485	A
10	MC	9353	4706	4624	A	1898	423	A	8868	485	A
11	MC	9353	4706	4624	A	1898	423	A	8868	485	A
13	MC	9353	4706	4624	A	1898	423	A	8868	485	A
14	MC	9353	4706	4624	A	1898	423	A	8868	485	A
15	MC	9353	4706	4624	A	1898	423	A	8868	485	>B
16	MC	9353	4706	4624	A	1898	423	A	8868	485	A
17	MC	9353	4706	4624	A	1898	423	A	8868	485	A
18	MC	9353	4706	4624	A	1898	423	A	8868	485	A
19	MC	9353	4706	4624	A	1898	423	A	8868	485	A
20	MC	9353	4706	4624	A	1898	423	A	8868	485	A
21	MC	9353	4706	4624	A	1898	423	A	8868	485	A
23	MC	9353	4706	4624	A	1898	423	A	8868	485	A
25	MC	9353	4706	4624	A	1898	423	A	8868	485	>B
26	MC	9353	4706	4624	A	1898	423	A	8868	485	A
27	MC	9353	4706	4624	A	1898	423	A	8868	485	A
28	MC	9353	4706	4624	>B	1898	423	A	8868	485	A
29	MC	9353	4706	4624	A	1898	423	A	8868	485	A
30	MC	9353	4706	4624	A	1898	423	A	8868	485	A
31	MC	9353	4706	4624	A	1898	423	A	8868	485	>B
32	MC	9353	4706	4624	A	1898	423	A	8868	485	A
33	MC	9353	4706	4624	A	1898	423	A	8868	485	>B
34	MC	9353	4706	4624	A	1898	423	A	8868	485	A
35	MC	9353	4706	4624	A	1898	423	A	8868	485	>B
36	MC	9353	4706	4624	A	1898	423	A	8868	485	>B
37	MC	9353	4706	4624	A	1898	423	A	8868	485	>C
38	MC	9353	4706	4624	A	1898	423	>B	8868	485	>C
39	MC	9353	4706	4624	A	1898	423	A	8868	485	A
40	MC	9353	4706	4624	A	1898	423	A	8868	485	>B
41	MC	9353	4706	4624	<B	1898	423	>B	8868	485	>B
42	MC	9353	4706	4624	A	1898	423	>B	8868	485	A
43	MC	9353	4706	4624	<B	1898	423	A	8868	485	A
44	MC	9353	4706	4624	<B	1898	423	>B	8868	485	>B
45	MC	9353	4706	4624	A	1898	423	A	8868	485	>C
46	MC	9353	4706	4624	<B	1898	423	A	8868	485	>B
47	MC	9353	4706	4624	A	1898	423	A	8868	485	A
48	MC	9353	4706	4624	A	1898	423	A	8868	485	A

Item No.	Type	Total N	No. of Male	No. of Female	DIF M/F	No. Of White	No. of Native American	DIF W/I	No. of Non-IEP	No. of IEP	DIF N/IEP
49	MC	9353	4706	4624	A	1898	423	A	8868	485	>B
50	MC	9353	4706	4624	A	1898	423	A	8868	485	A
51	MC	9353	4706	4624	A	1898	423	A	8868	485	A
52	MC	9353	4706	4624	A	1898	423	>B	8868	485	A
53	MC	9353	4706	4624	A	1898	423	A	8868	485	A
54	MC	9353	4706	4624	A	1898	423	A	8868	485	A
55	MC	9353	4706	4624	A	1898	423	A	8868	485	A
56	MC	9353	4706	4624	<B	1898	423	A	8868	485	>B
57	MC	9353	4706	4624	A	1898	423	A	8868	485	A
58	MC	9353	4706	4624	A	1898	423	A	8868	485	A
59	MC	9353	4706	4624	A	1898	423	A	8868	485	A
60	MC	9353	4706	4624	A	1898	423	A	8868	485	A
61	MC	9353	4706	4624	A	1898	423	A	8868	485	A
62	MC	9353	4706	4624	A	1898	423	A	8868	485	A
63	MC	9353	4706	4624	A	1898	423	A	8868	485	>B
64	MC	9353	4706	4624	A	1898	423	A	8868	485	A
65	MC	9353	4706	4624	A	1898	423	A	8868	485	A
66	MC	9353	4706	4624	A	1898	423	A	8868	485	A
67	MC	9353	4706	4624	A	1898	423	A	8868	485	A
68	MC	9353	4706	4624	A	1898	423	>B	8868	485	A
69	MC	9353	4706	4624	A	1898	423	>C	8868	485	A
70	MC	9353	4706	4624	A	1898	423	A	8868	485	A
71	MC	9353	4706	4624	A	1898	423	A	8868	485	A
72	MC	9353	4706	4624	A	1898	423	A	8868	485	A
73	MC	9353	4706	4624	<B	1898	423	A	8868	485	A
74	MC	9353	4706	4624	A	1898	423	A	8868	485	A
75	MC	9353	4706	4624	A	1898	423	A	8868	485	A
76	MC	9353	4706	4624	A	1898	423	>B	8868	485	A
77	MC	9353	4706	4624	A	1898	423	A	8868	485	A
78	MC	9353	4706	4624	A	1898	423	A	8868	485	A
79	MC	9353	4706	4624	A	1898	423	A	8868	485	A
80	MC	9353	4706	4624	A	1898	423	A	8868	485	>B
81	MC	9353	4706	4624	A	1898	423	>B	8868	485	A
82	MC	9353	4706	4624	>B	1898	423	A	8868	485	A
83	MC	9353	4706	4624	A	1898	423	A	8868	485	A
84	MC	9353	4706	4624	A	1898	423	A	8868	485	A
85	MC	9353	4706	4624	A	1898	423	A	8868	485	>B
86	MC	9353	4706	4624	A	1898	423	A	8868	485	A
87	MC	9353	4706	4624	A	1898	423	A	8868	485	A
88	MC	9353	4706	4624	A	1898	423	A	8868	485	A
89	MC	9353	4706	4624	A	1898	423	A	8868	485	A
90	MC	9353	4706	4624	>B	1898	423	A	8868	485	A
91	MC	9353	4706	4624	A	1898	423	A	8868	485	A
92	MC	9353	4706	4624	A	1898	423	A	8868	485	A
93	MC	9353	4706	4624	A	1898	423	A	8868	485	A
94	MC	9353	4706	4624	A	1898	423	A	8868	485	A

Item No.	Type	Total N	No. of Male	No. of Female	DIF M/F	No. Of White	No. of Native American	DIF W/I	No. of Non-IEP	No. of IEP	DIF N/IEP
95	MC	9353	4706	4624	<B	1898	423	A	8868	485	A
96	MC	9353	4706	4624	A	1898	423	A	8868	485	A
97	MC	9353	4706	4624	A	1898	423	A	8868	485	A
98	MC	9353	4706	4624	>B	1898	423	A	8868	485	A
99	MC	9353	4706	4624	A	1898	423	A	8868	485	A
100	MC	9353	4706	4624	A	1898	423	A	8868	485	A
101	MC	9353	4706	4624	>C	1898	423	>B	8868	485	A
102	MC	9353	4706	4624	A	1898	423	A	8868	485	A
103	MC	9353	4706	4624	A	1898	423	A	8868	485	A
104	MC	9353	4706	4624	A	1898	423	A	8868	485	A
105	MC	9353	4706	4624	A	1898	423	A	8868	485	A
106	MC	9353	4706	4624	A	1898	423	A	8868	485	A
107	MC	9353	4706	4624	A	1898	423	A	8868	485	A
108	MC	9353	4706	4624	A	1898	423	A	8868	485	A

APPENDIX J: Item *p*-value Classification

Item *p*-value Classification

Grade	Pvalue<0.1		0.1<=Pvalue<0.2		0.2<=Pvalue<0.9		Pvalue>=0.9	
	No. of Items	%	No. of Items	%	No. of Items	%	No. of Items	%
Reading								
3	0	0.00	0	0.00	44	91.67	4	8.33
4	0	0.00	0	0.00	43	84.31	8	15.69
5	0	0.00	0	0.00	54	96.43	2	3.57
6	0	0.00	0	0.00	56	100.00	0	0.00
7	0	0.00	0	0.00	54	96.43	2	3.57
8	0	0.00	0	0.00	46	93.88	3	6.12
11	0	0.00	0	0.00	38	95.00	2	5.00
Mathematics								
3	0	0.00	0	0.00	98	93.33	7	6.67
4	0	0.00	0	0.00	102	97.14	3	2.86
5	0	0.00	2	1.90	102	97.14	1	0.95
6	0	0.00	0	0.00	102	97.14	3	2.86
7	0	0.00	0	0.00	105	100.00	0	0.00
8	0	0.00	0	0.00	104	99.05	1	0.95
11	0	0.00	0	0.00	103	98.10	2	1.90

APPENDIX K: Item point-biserial Classification

Item point biserial Classification

Grade	<u>ptbis<0.1</u>		<u>0.1<=ptbis<0.3</u>		<u>ptbis>=0.3</u>		<u>ptbis<0.3</u>	
	No. of Items	%	No. of Items	%	No. of Items	%	No. of Items	%
Reading								
3	0	0.00	11	22.92	37	77.08	11	22.92
4	0	0.00	14	27.45	37	72.55	14	27.45
5	0	0.00	13	23.21	43	76.79	13	23.21
6	2	3.57	11	19.64	43	76.79	13	23.21
7	0	0.00	16	28.57	40	71.43	16	28.57
8	1	2.04	18	36.73	30	61.22	19	38.78
11	0	0.00	10	25.00	30	75.00	10	25.00
Mathematics								
3	0	0.00	21	20.00	84	80.00	21	20.00
4	1	0.95	22	20.95	82	78.10	23	21.90
5	3	2.86	18	17.14	84	80.00	21	20.00
6	1	0.95	10	9.52	94	89.52	11	10.48
7	0	0.00	16	15.24	89	84.76	16	15.24
8	1	0.95	15	14.29	89	84.76	16	15.24
11	0	0.00	14	13.33	91	86.67	14	13.33
